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Illustrated and  
Descriptive

# Catalogue

INDEXED.

... of the ...

INDEXED

## Mount

## Arbor...

## Nurseries

**Fruit and  
Ornamental**

**...TREES**

**Small Fruits,  
Shrubs, Vines,  
Roses, Bulbs,  
Etc., Etc. . .**

**E. S. Welch,**  
Proprietor.

## Shenandoah, Iowa.

### REFERENCES :

Shenandoah National Bank. Mercantile Agencies.  
Any Business House in Shenandoah. ❀❀❀❀❀

—Iowa Grown Trees Lead the World.—



MARSHALL P. WILDER.



# TO THE PUBLIC.

In presenting this catalogue we desire to thank our many patrons for the liberal patronage extended in the past and assure you all future orders will have the same careful attention as heretofore.

With our large and improved packing houses, side track and other facilities, we are especially well prepared for handling our business with promptness and dispatch. We have the exposure of stock reduced to the minimum. After digging, all stock is immediately sent to our packing houses where it is graded, packed and handled under cover. Customers may rely upon receiving stock in prime condition.

The lists of varieties given include the best of the older sorts and the cream of the newer ones. We grow and can furnish other varieties than those named and solicit correspondence regarding same. The ones listed are standard and have been found by test to be well adapted to this latitude, and are general favorites.

**Our Extensive Nurseries**—Our line of stock is large and complete in every department. We make a specialty of growing a general line of nursery stock especially for the retail and large planters' trade, using the most approved methods of propagating known, giving special attention to producing the most desirable orchard tree, with a splendid system of roots, using only strong, vigorous and healthy roots to start our trees from, trimming and pruning them with great care to form a model head and stocky body. As the future value of the orchard depends so largely on the quality of the trees planted, it is of the greatest importance that only trees of the very best quality be secured.

We employ a large force of trained and skilled workmen in the various departments of our work, propagating by budding, grafting, layering and other methods, large quantities of trees, plants, etc., each year.

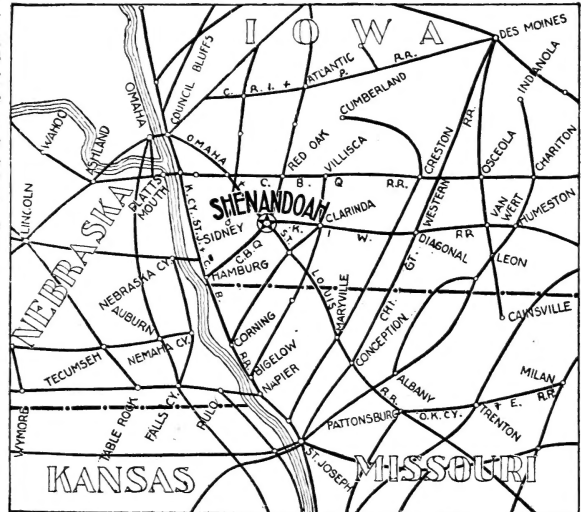
**Location**—We are located in Southwestern Iowa in the Garden Spot of the West, with the best of railroad facilities.

**Soil**—Our soil being of a character best suited to produce the healthiest conditions of growth—that solid firm texture of the wood, with deep penetrating roots and an abundance of fibrous roots, so necessary for successful transplanting and the future value of the trees, we are thus enabled to offer the products of our Nurseries, with entire confidence, to planters in all sections of the country.

**Packing**—We give our packing and shipping careful, personal supervision, and to still further protect our patrons, as well as ourselves, against loss in this direction, we employ the most skilled and competent hands to assist us.

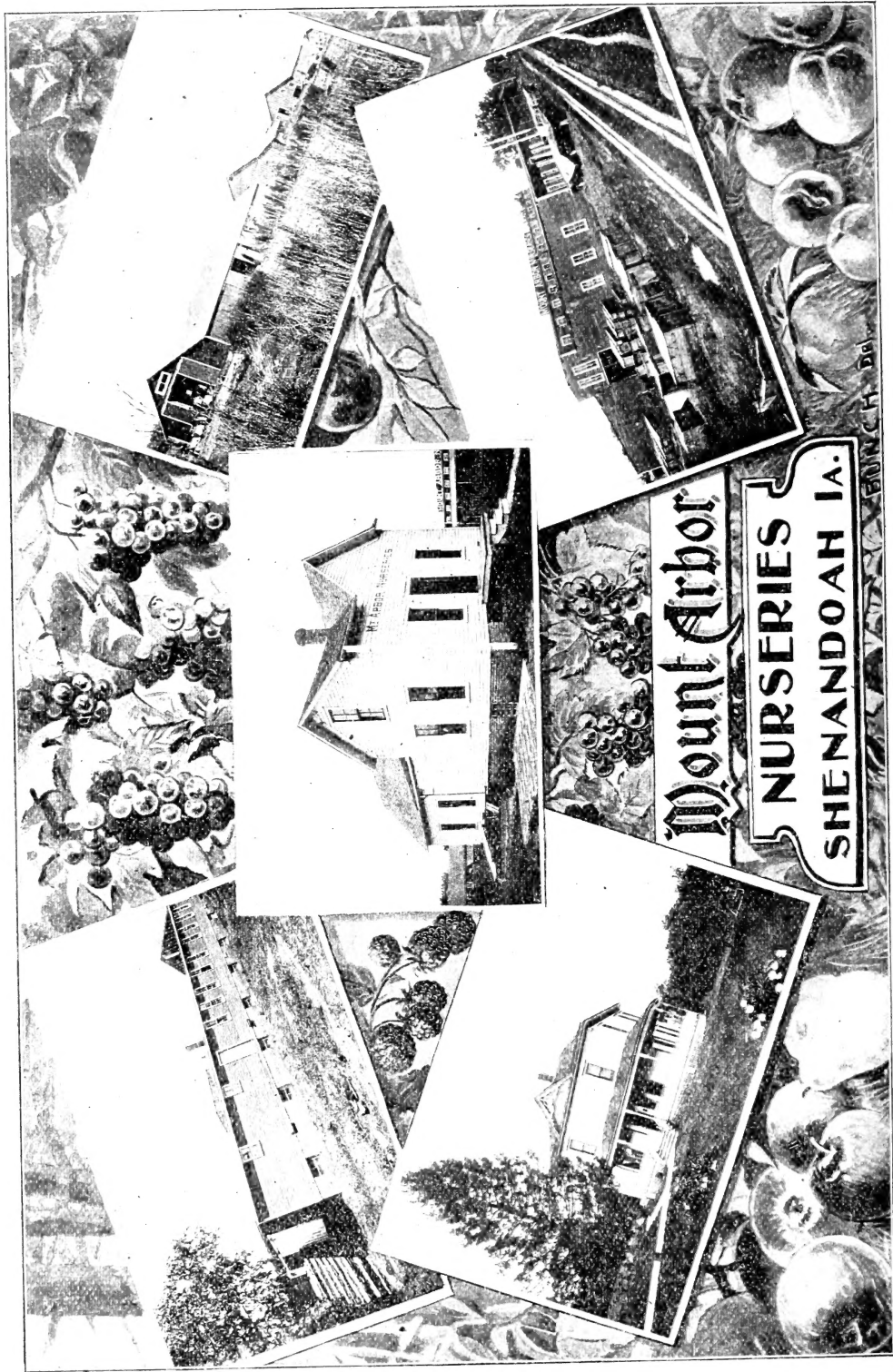
All correspondence and inquiries given prompt attention.

Address,



**MOUNT ARBOR NURSERIES,**

**Shenandoah, Iowa.**



DON'T FORGET THE NAME—MOUNT ARBOR.

## A FLOURISHING INDUSTRY.

The Mount Arbor Nurseries were established in 1875, and have been extended and enlarged to meet the demands of a constantly increasing business, until now their output reaches all parts of the United States, Canada, Nova Scotia, Manitoba and British Columbia.

The Mount Arbor came under the present management in 1891, since which time the business has more than quadrupled. We invite inspection and court investigation of our methods, both as growers and in a business way.

"The rapid growth of the fruit industry is simply astonishing," said Division Freight and Passenger Agent Davenport of the Burlington Route. "People do not realize how it has developed in the last few years." In support of this assertion Col. Davenport stated that during the last year his road had hauled no less than 108 full car lots of fruit trees from Shenandoah, Iowa. This, however, was not more than one-half of the business done, as a large proportion of the shipments were naturally in lesser quantities than car lots. The raising of fruit trees in Shenandoah has become an industry of large proportions, there being at present between 1,500 and 2,000 acres planted with nursery stock of all kinds.

The office and packing grounds of the Mount Arbor Nurseries are located one block south of the Wabash depot, and include five acres of choice ground within the city limits. The illustrations on opposite page give a fair idea of the number and extent of our buildings.

The fields of growing nursery stock are principally east of the city on gently rolling upland. South and east of the city are two other blocks with soil especially adapted to certain classes of stock. Most of our fields are within a mile of the packing grounds. Our facilities for handling stock are the best of any firm in the country. There is a complete system of city water works on the grounds and in all of the buildings, which, with our improved methods, enables us to pack and deliver all orders in the best possible condition.



PRACTICAL TREE DIGGER.

Since the above item was published a fifth building has been built, 62x110 feet, frost-proof and two stories.

The accompanying illustration shows our method of removing trees from the ground, which insures a fine system of roots. In our mellow, rich soil, six or eight mules furnish ample power for running the "U" shaped blade sixteen to eighteen inches under the roots of the trees. From our experience we consider this the most economical and perfect method for digging large blocks of trees. In stony, clay soil, some other more powerful means may be necessary, but not here in Southwest Iowa.



BLOCK OF GANO APPLE, TWO-YEAR.

The *National Nurseryman*, Rochester, N. Y., says: "The Mount Arbor Nurseries, Shenandoah, Iowa, have recently added a fourth large packing house, 102x126 feet. The building is lighted with electricity, and is well arranged for handling stock and boxing orders. A private side track makes shipping convenient over both the Wabash and Burlington railroads. The Mount Arbor Nurseries is one of the large concerns of the country."

# GENERAL INSTRUCTIONS

## FOR TRANSPLANTING AND MANAGING FRUIT TREES.

### INTRODUCTION.

Few persons have any idea of the great value and importance of our orchards, vineyards and small fruits. Few products of the soil are more remunerative, if properly attended to—and probably nothing that will disappoint us more if neglected. It is not at all difficult to save trees, when delivered in good order, but still less difficult to lose them through neglect or bad management. We do not pretend in this little work to give complete directions on all points connected with fruit culture, but simply instructions on the more important points connected with the transplanting, pruning, and management of young trees, vines, etc., and we present this catalogue to our patrons with the assurance that if the instructions herein given are complied with, they will not be disappointed in raising trees and ultimately fruit. If, on the contrary, they choose to disregard or neglect the advice here given and fail, the fault will be with them and not with us.

### INSTRUCTIONS.

**1. Preparing the Ground**—Before planting fruit trees the soil (except new ground) should be made mellow by repeated plowing, and where the soil is densely packed a subsoil plow should be used and the ground stirred up from twelve to fifteen inches deep. If this is neglected the roots are soon surrounded by an almost impenetrable wall and cannot be expected to live many years. Whenever this system has been practiced, healthy and vigorous trees and fine fruit have been the result.

**2. Receiving and Caring for Trees**—Trees are frequently ruined through the lack of care or bad management after they fall into the hands of the purchaser. We have known them to lie for days, tied up in a bundle just as received from the nurseryman, exposed to the sun and air, and then set out with certainly no expectation of their living, when one hour's time would have buried them in the ground and placed them beyond danger. When trees are received the roots should be covered with a blanket, sack or straw until they reach their destination. The bundle should then be opened and the trees separated from the moss in which they are packed. If the roots have become dry from long exposure, straw should be spread upon the ground, the trees laid upon it, then covered entirely (roots and tops) with straw, and the whole well watered. In this condition they should remain for forty-eight hours, when they will be found as fresh as when first taken from the nursery. If holes are not yet dug or the ground too wet to plant when the trees are received, dig a trench and lay the trees therein, in a slanting position, so that you can cover up the roots and two-thirds of the body or stalk. In this position let them remain until the holes are dug or the ground is in a suitable condition to receive them.

**3. Digging the Holes**—If the soil for an orchard has been properly prepared by subsoiling and deep plowing, then the opening of the holes becomes a very simple matter, and really this is by far the easiest, cheapest and best plan; for if the soil is thoroughly pulverized to a depth of from twelve to fourteen inches, all that is necessary is to measure off the distance at which the trees shall stand from one to another and the order of planting. Flag poles are to be set in the line to be occupied by the first row of trees and a deep furrow is then opened with a large plow; the poles are then moved and set for the next row of trees, and so on until the whole is laid off, making the furrows as straight as possible. This done, a lighter plow, drawn by a single horse, is driven across these deep furrows at the proper distances, so that the intersections indicate where the trees are to stand. A few shovelfuls of earth removed, and the hole is ready for the tree. If the furrows have not been recently made it will be well always to move a portion of the surface, so as to have fresh soil next to the roots. Where only a few trees are to be planted and the soil has not been subsoiled, or where trees are to be planted in sod, then the holes ought to be at least our feet wide and eighteen to twenty inches deep, the subsoil thrown back and the hole filled up to the proper depth with fine top soil to receive the trees.

**4. Prune Before Planting**—Both root and top should be pruned at time of planting and before the tree is set in the ground. When taken from the nursery the roots are more or less mutilated, therefore the balance of the tree must be restored by cutting off a portion of the side and top branches. First cut off the ends of the broken and bruised roots with a sharp knife, in a slanting direction on the under side. This will cause the wound to heal over readily, by throwing out plenty of fibrous roots at the end. Then cut back each branch or side limb to a bud not more than four to six inches from the body. Then cut back the leader or central

limb so as to leave it about four or five inches above the highest side limb. When there are no side limbs the tree should be headed back to a height proper to form a top. None of the lower limbs should be cut off entirely as it is best to form the heads as low as possible, so that the limbs and leaves will protect the trunk from the direct rays of the sun.

**5. Depth to Plant**—Immense numbers of trees are ruined by being planted too deep. Most kinds of fruit trees, except dwarf pears and plums on peach roots, should be planted not over two or three inches deeper than they grow in the nursery row. Dwarf pears and plums on peach roots should be set so that the joint where the body and roots are united will be about four inches below the top of ground. By this means roots will be thrown out from the body that is covered and larger and longer lived trees secured.

**6. Planting**—When ready to plant and before removing the trees from the trench, dig a hole about the size required for a tree; fill it to about six inches of the top with water, then fill it in with fine soil and stir into a thick puddle. Take from the trench a few trees at a time, prune as directed in No. 4 and place them in the puddle so that the roots are well covered; let them remain until the hole is ready and then remove one by one as the trees are needed—the hole being filled with good mellow soil to within five or six inches of the top, leaving a little mound in the center of the hole; place the tree in position and arrange it to the proper depth by filling in or raking back the soil to or from where the tree will stand; then fill in the fine mellow soil between and around the roots with the hand, arranging the roots in their natural position and packing the soil carefully around them. When the roots are barely covered, sprinkle on not less than half a bucketful of water to moisten the soil and settle it among the roots; then fill to the top, press the earth very firm around the tree with the foot as you fill in. Throw a bucket of water around each tree, to settle the ground, and scatter a little soil on to prevent baking. If the planting is done in the fall, a mound of earth eighteen to twenty inches high should be thrown up around each tree; this protects the tree and keeps it firm and upright; but be sure to hoe the mound away early in the spring or it will be apt to smother your trees. Trees set out in this way and well mulched will withstand almost any amount of drouth.

**7. Mulching**—Is of vital importance and should never be neglected except where trees are kept well cultivated, which will take the place of mulching. Mulching prevents the moisture from escaping and maintains equitable temperature about the roots. The material used may be long manure, litter, straw, grass, hay, sawdust or tan bark, which should be spread on the surface around the tree for the space of four or five feet and three to six inches deep. Bearing trees may be benefited by mulching heavily in winter, which will tend to prevent an early development of the fruit buds and assist them to escape the effect of late frosts.

**8. After Culture**—The trees should be kept free from grass and weeds, and no crops should be grown in the orchard while the trees are young, except such as can be cultivated with the plow or hoe. Cultivate well in the spring and summer. Give under-drainage when it is needed and attend annually and carefully to surface drainage. Bone dust, salt and plaster are excellent manure for trees, when used on the surface; no manure of any kind should ever be put in the hole with the tree—it is very injurious, causing a rank growth, making the tree tender and consequently short-lived.

**9. After Pruning**—The great majority of people do not take proper care of their trees after planting. This is a great mistake. If a tree or vine does not receive the right kind of care and enough of it when young, it will never attain a healthy old age. Very much has been said about pruning, by various authors. Judging these and our own experience and observation, we would say: The best time to prune fruit trees, and about all kinds of trees and shrubs, is during May and June, May preferred; but be governed by the health and vigor of the tree. We do not advise severe pruning, as too much would injure the tree. Keep all superfluous forks and limbs cut off and the heads in proper shape to admit air and sunshine as long as the tree lives. Currants and gooseberries should be trimmed late in the fall or early in the spring, before commencing to grow, grape vines late in November or any time during the winter up to March 1st; after this trimming is apt to excite bleeding or flowing of sap from the wounds. If desirous of getting rubbish removed from the orchard during the winter, cut limbs off eight to ten inches from the body and cut balance off during May or June following.

**10. Standard Apple Trees**—May be planted twenty-five to thirty feet apart. We advise planting the rows thirty-three feet by sixteen and one-half feet apart; it is better to plant the close way north and south. When the trees attain age and begin to crowd cut out every other tree. Those left will be in better condition and the others will have borne six or eight crops of fruit. Low heads are preferred, so as to protect the trunk from the direct rays of the sun. Cultivate as directed and do not neglect to mulch them, especially young trees. Some prefer planting thirty-three feet apart each way and planting a peach tree between each apple tree.

**11. Crab Apples**—Should be planted fifteen feet apart. They are very hardy and bear young and abundantly. The fruit is highly valuable for preserves and jelly and makes the finest cider known. Plant and cultivate same as apple.



**12. Standard Pears**—Should be planted fifteen to twenty feet apart. They are grown on stock imported from France and will grow on almost any soil, provided the subsoil is not too wet; whenever this is the case the ground should be thoroughly under-drained. The best results are obtained from pears on a clay slope where the soil is poor.

**13. Standard Cherries**—Should be planted fifteen to twenty feet apart. The soil best adapted to the cherry is a light loam on a gravelly or sandy subsoil, though it will do well in almost any situation not too wet. To insure a good growth cherries should be well cut back for several successive seasons. Plant as directed and mulch well in the spring.

**14. Plums**—Should be planted ten to fifteen feet apart, in clusters, as so planting assures more complete fertilization of the blossoms, thereby giving the fullest returns of the most delicious fruit. Plums should have rich soil, which should be kept well cultivated.

**15. Peaches**—Should be planted twelve by twelve feet apart. To secure healthy, vigorous and fruitful trees and fine fruit, the following points must be well attended to: First—Keep the ground clean and mellow. Second—Keep the heads low—the trunks should not exceed three feet high. Third—give them an occasional dressing with wood ashes. Fourth—Prune every spring, shortening the shoots of the previous year's growth; this keeps the head round, full, and well furnished with bearing wood. Cut weak shoots back about one-half, and strong ones one-third; but see that there is left a sufficient supply of fruit buds. Sickly and superfluous shoots should be cut out clean. The fruit is borne on wood of last year's growth and hence the necessity of keeping up a good supply of vigorous annual shoots all over the tree. Salt is an excellent fertilizer for peach trees; soap suds are also good. Young trees should be well mulched every spring, or kept well cultivated until about the middle of July each year. Would advise planting a good wind break on south side of orchard.

**16. Apricots and Nectarines**—Should be planted fifteen feet apart, and need the same management, culture and training as the peach.

**17. Currants and Gooseberries**—Should be planted in the garden four feet apart; sawdust and tan bark should be used as a mulch. The currant flourishes in almost any kind of soil; but to have the fruit in perfection, plant in rich, deep soil, and give good annual pruning and cultivation. When plants are grown as stools or bushes, the older and feebler suckers should be cut out and the stem and root kept free from suckers.

**18. Raspberries**—Should be planted four feet apart each way or rows five feet apart and three feet apart in row and in a deep soil—one that will retain moisture well in drouth. In training allow only a few canes to grow from each plant, cutting away all suckers to throw the strength into the stalk for bearing; all old canes should be removed immediately after the fruit is all picked.

**19. Blackberries**—Require the same kind of soil and treatment as raspberries, except that they should be planted in rows eight feet wide and four feet apart in the row. A neat and improved method of pruning will make the plants self-sustaining bushes, viz.: As soon as the plants are about four feet high, clip off the points of the growing cane and repeat the operation several times, until they assume the form of a bush. If not pruned in this manner they require to be tied to a stake or wire trellis. Mulching is of great advantage to both raspberries and blackberries.

**20. Grapes**—If planted for fastening to a trellis or arbor, should be eight feet apart; if tied to stakes, six feet apart. The holes should be dug not less than four feet wide and two feet deep. Burying bones under the roots make the vines more prolific and the fruit of better quality. The bones should be put in the bottom of the hole and covered with fine soil, then pour on a little water to settle the dirt amongst the bones; then fill up with mellow soil to within five or six inches of the top; cut off the bruised and broken roots; straighten the roots to their natural position and cover them with fine mellow soil about two inches, packing it carefully with the hand; then sprinkle on sufficient water to moisten the roots, fill up the hole and press the dirt very firm as you fill in. A stake should be placed with each vine at the time of setting, six to seven feet high. The first year train one shoot only up to the stake; pinch off all the others and also all the lateral or side shoots that appear during the first season; cut the vine down to within three or four buds of the ground. The following season train up two shoots in the same manner. It is advisable to remove most varieties from trellis and cover with dirt during winter.

**21. Strawberries**—The ground should be prepared the same as for the other crops; if not already rich, make it so by manuring. Mark out the rows the desired width and set plants twelve to seventeen inches in rows; if set twelve inches in rows four feet apart, an acre will require 10,890 plants—same as if sixteen inches in rows three feet apart. Keep in rows and cultivate. A new bed should be planted every two or three years. In the early winter, when the ground is frozen, cover the whole with long straw, which should be partially removed from the row in the spring, but enough allowed to remain on the ground as mulch to keep the berries clean the following summer. When the plants are moved in the fall they should be left until September. If taken up too early the plants are not as likely to live, as the

roots are soft and spongy and will not bear exposure so well as after they have become matured and ripened.

**22. Wintering Trees When Procured in the Fall**—Procuring trees in the autumn for early spring planting is recommended, when the purchaser is not prepared to plant in the fall or prefers spring setting, or where the winters are too severe to set out young trees and plants in the fall. The greatest advantages derived in doing so are that when the roots have been cut or pruned it will be found upon taking them up in the spring, that a callous has been formed, ready for the producing of new rootlets, and the trees being planted without much exposure as soon as the frost is out of the ground, will become thoroughly established the first season, and should make twice the growth of late planted trees, and the labor of planting is done before the rush of spring work sets in. To insure success select a dry spot of ground where water will not stand during winter and no grass or litter that will invite mice. Dig a trench from three to four feet wide, according to the amount of trees to be heeled in, and deep enough to admit one layer of roots and sloping enough to let the trees lie at angle of about 30 degrees, throwing the earth on back part of the trenches so as to make a more perfect slope on which to lay down the trees. Put in one layer of trees, placing the roots as close together as can conveniently be done; cover them with well pulverized, moist soil well up on the bodies, and see that it is carefully worked in about the roots, as if they were being planted; then add another layer of trees, overlapping the first, and continue as at first until all are heeled in, throwing the ground well up around the branches, with about six inches of dirt on the tops, covering the trees entirely up with earth. The roots should be pruned before laying them down in the fall.

Peach trees and apricot trees should be mounded up every winter and allowed to remain a little later in the spring to insure full crops and protect them from late frosts.

## RECIPES.

Customers will find it to their advantage to follow the directions of this catalogue.

Protect from rabbits and mice during autumn and winter with wire netting or by tying cornstalks or coarse grass around the body of each tree, and always mulch your trees as soon as they are planted, or keep well cultivated.

Dissolve two pounds of potash in two gallons of water; apply to young trees with soft brush. This is a good wash.

Leached wood ashes placed with soil around the body of peach trees afford protection against the invasion of the peach borer.

To kill the rose-bug and slug, sprinkle the bush with a mixture of whale oil soap and tobacco juice.

## AN INVALUABLE RECIPE.

Take STONE LIME, slake and prepare as for ordinary whitewash, in an old barrel or box. Take enough at a time to make a bucket two-thirds full of the consistency for ordinary white-washing. Now add one pint of GAS TAR, one pound of WHALE OIL SOAP dissolved in hot water (or one pound of common SOFT SOAP, or one pound of POTASH, or one pint strong LYE from wood ashes), then add CLAY or LOAM enough to make the bucket full of the wash of the proper thickness to be applied with a whitewash brush. If the trees have had the earth ridged up around them, take the earth away from around the collar and apply the wash to the body of the trees from the limbs to the ground or down to the roots.

Its advantages are: First—It will destroy the bark louse and will give the trees a bright, clean, healthy appearance. Second—The wash will drive out all borers that may be in the trees, and moths will not deposit eggs on or about the trees the same season the wash is used.

All who grow apple, peach, dwarf pear, quince and ash trees should use this wash; don't fail to use it because not patented and sold at a high price. We have known cases where peach trees have been badly affected by the borer, and they have all left and the trees become healthy and vigorous with one application of the wash.

Again, mice and rabbits will not girdle trees where the wash is used. Apply in May for borers and general benefit to the trees, and in autumn as a preventive against mice and rabbits. Use the wash annually. Gas tar applied pure will kill trees.

It emphatically pays to thin fruit on the tree so that no two will touch. The result is increased size and perfect specimens free from rot and disease.

## NUMBER OF TREES AND PLANTS TO AN ACRE.

30 feet by 30 feet apart .....	48	12 feet by 12 feet apart.....	302
25 " " 25 " " .....	69	8 " " 4 " " .....	1360
33 " " 16½ " " .....	80	6 " " 6 " " .....	1210
30 " " 15 " " .....	97	4 " " 4 " " .....	2722
15 " " 12½ " " .....	140	3 " " 1 " " .....	14520
20 " " 10 " " .....	218	2 " " 2 " " .....	10890

The number of plants required for an acre, at any given distance apart, may be ascertained by dividing the number of square feet in an acre (43,560) by the number of square feet given to each plant, which is obtained by multiplying the distance between rows by the distance between the TREES OR PLANTS. Thus strawberries planted three feet by one foot, gives each plant three square feet or 14,520 plants to the acre.

## SPRAYING.

Experience and careful study of the habits of insects and the causes of rot, fungus and blight, which are so destructive to fruit trees, plants and fruits, have demonstrated the fact that spraying properly done and at the proper time, for protection against these enemies of the horticulturist, is the best, if not the only remedy. That it has succeeded, and will succeed, is evidenced by the rapidly increasing interest manifested in the manufacture, sale and use of spraying machines, and the good results obtained by those who practice this mode of protection.

It is impossible in a catalogue like this, to give descriptions of insects, diseases, etc., but only a brief outline of how to prepare formulas and when and how to use them in order to effect a remedy, which will be found as follows:

### WHEN AND HOW TO SPRAY.

**Apple Trees.** For prevention of leaf blight, spray with Bordeaux Mixture as soon as the leaves have developed. Repeat the application at intervals of two to four weeks, until the 1st of August. For the canker worm and codling moth, spray with Paris Green or London Purple, as soon as the blossom has fallen, and about ten days later or after heavy showers of rain.

To destroy the aphid or plant louse, spray with tobacco water or with kerosene emulsion as soon as the pest appears. Treatment for bitter or black rot or scab in the fruit is Bordeaux Mixture just before the leaves and blossoms expand, and again soon after the fruit has set; then again fourteen days later, and again in about four weeks. This disease has also been successfully treated by Sulphide of Potassium. When necessary to spray for the above and also for canker worm or codling moth, a combination of Bordeaux Mixture or Paris Green or London Purple can be applied, which is as effective as when separate treatments are made, using the same proportion of London Purple or Paris Green as if used alone.

**Pear and Quince** require about the same treatment as the apple.

**Cherry.** Treat about the same as the apple, but do not continue too late, so as to discolor the fruit.

**Peach.** Brown rot, fruit rot, twig blight, spray just before the buds begin to swell with a simple solution of copper sulphate, using one pound to twenty gallons of water. While the buds are swelling, spray with the Bordeaux Mixture and repeat when the fruit has set. When the fruit is growing, spray with ammoniacal carbonate of copper, using one ounce of copper carbonate to twelve gallons of water. Repeat with this latter formula at intervals of six to eight days, until the fruit is harvested. It is only necessary to make so many applications where there are indications or danger of the rot. It is believed that frequent applications of the Sulphide of Potassium will prevent the rot and scab.

**Plum.** CURCULIO.—Spray the trees with Paris Green and lime, each at the rate of one pound to about 200 gallons of water. For brown rot and fruit rot, treat same as for the peach.

**Grapes.** For black rot, use the Bordeaux Mixture before the disease appears, and continue its use, but not too late to discolor the fruit when ripe.

**Gooseberries.** MILDEW.—Bordeaux Mixture or Sulphide of Potassium. Weekly applications of the latter have given excellent results.

**Raspberries.** ANTHRACNOSE (Cane Rust).—This disease has not been very successfully treated. The best recommendation that can now be given is to spray the bushes thoroughly with the copper sulphate solution before the buds swell in the spring, and follow this with copious applications of Bordeaux Mixture at intervals of two weeks.



## FORMULAS.

**Bordeaux Mixture.** FORMULA.—The "Normal" or 1.6 per cent. Copper Sulphate, six pounds; Quicklime (unslacked), four pounds; Water, forty-five gallons.

If air-slacked lime is used in place of the fresh article, double the amount should be used; but the fresh is much more reliable. By combining the copper and lime it is found that the copper sulphate may be used more freely and with less injury than if used alone, and that it will adhere a long time to the foliage.

To make the Bordeaux Mixture, dissolve the copper in hot water (or if placed in a coarse sack or basket, and suspended in a tub of cold water, it will dissolve in two or three hours, while if put in cold water on the bottom of a tub or vessel, it remains undissolved for a long time), then in a separate tub slack the lime thoroughly, and when both are cold, pour the two together, stirring constantly. Dilute with water to make forty-five or fifty gallons of liquid. Before using the mixture should be strained through a burlap or fine wire strainer to take out the coarse particles of lime.

If insects are found attacking the plants or trees to be treated for fungous growth, Paris Green may be added to the Bordeaux Mixture at the rate of one pound to 100 or 200 gallons of the mixture; and the lime will prevent this large quantity of the Paris Green from burning the foliage, and two pests be destroyed by one spraying.

In spraying peach trees use about one-third more water.

**Kerosene Emulsion.** FORMULA.—One-half pound common bar soap, two gallons of water, two gallons of common kerosene. Dissolve the soap in hot water; while still hot, add the kerosene and stir vigorously until a soft soap or cream-like substance is formed. When cold, dilute with water to make from ten to twenty-five gallons of liquid. This is used for the destruction of sucking insects like aphides (plant lice), scale insects, etc. Always use soft water.

**Paris Green** alone can be safely used only at the rate of one pound to 250 to 300 gallons of water; if, however, two pounds of lime are slacked in water, and added to twenty-five gallons of water, at this rate one pound of Paris Green can be used in 100 gallons of water without injury to the foliage.

To prevent mildew use one-half ounce Potassium Sulphide to one gallon of water.

## CHEAP TREES.

Our salesmen are often informed by prospective customers how cheap they can buy trees, and we frequently receive letters, the writers stating they have written to other nurserymen and growers and intend to place their orders where they can buy the cheapest. Just a word about cheap trees. The prices some trees are offered at practically exclude the possibility of their being first-class. No experienced grower will recommend you to buy cheap trees simply because they are cheap, or buy auction stock, but go to an established nursery firm which has a reputation at stake, and will not in its own interests palm off a worthless tree. A few cents per tree extra at first is dollars saved in the long run. If you buy an ill-formed scrubby tree it remains a scrubber all its life. A good tree takes up no more room than a bad one; by all means plant the good. Do sensible men buy the cheapest horse, the cheapest clothes, employ the cheapest lawyer, or the cheapest doctor, because they are cheap? No; the same applies to cheap trees. It isn't natural. Buy the best obtainable to insure the most satisfactory results. With all your getting, get the best. Trees that have been properly worked, nurtured and cared for, well taken up with all their roots, and selected by throwing out any that have poor roots, crooked in the stem, or stunted in growth, entail considerable outlay, and are well worth the price we ask.

## GUARANTEE OF GENUINENESS.

While the greatest diligence and care to have all trees, etc., true to label will be exercised, mistakes may occur, and in such cases, upon proper proof, the trees, etc., will be replaced free of charge; and it is mutually understood and agreed to between the purchaser and ourselves that the guarantee of genuineness shall in no case make us liable for any sum greater than that originally paid for the trees, etc., that proved untrue, nor for damage.

# FRUIT DEPARTMENT.

## APPLES.

The first fruit, both in importance and general culture, is the Apple. Its period, unlike that of other fruits, extends nearly or quite through the year. By planting judicious selections of summer, autumn and winter sorts, a constant succession can be easily obtained of this indispensable fruit for family use.

There is no farm crop which, on the average, will produce one-fourth as much income per acre as will a good apple orchard.

As fruit has become cheaper on account of the increased supply, a large and constantly increasing European export has sprung up, which affords highly remunerative prices for the best selected specimens of our orchards, while the process of "evaporation" of fruit has become a recognized auxiliary to the horticulture of the land.

### SUMMER VARIETIES.

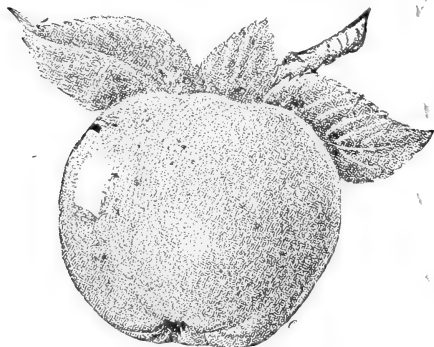
**Benoni**—Medium, roundish, pale yellow, shaded with crimson; juicy, tender, sub-acid. Aug.

**Chenango**—Fruit medium size, oblong, indistinctly ribbed; skin whitish, splashed and mottled with light and dark crimson; flesh white, tender, juicy, with a mild sub-acid flavor. A pleasant fruit, esteemed for the table, and so handsome as to make it a quick selling market variety; tree vigorous and a good bearer. Aug. and Sept.

**Duchess of Oldenburg**—Russian; medium to large size; skin yellow, streaked with red and somewhat blushed; flesh juicy and good, with a rich sub-acid flavor; tree a vigorous grower and abundant bearer; one of the ironclads. Aug.

**Early Harvest**—Medium to large, roundish, bright straw color; flesh white, tender, juicy, crisp, with a rich sub-acid flavor; tree moderately vigorous and productive; one of the best. First of July.

**Golden Sweet**—Large, pale yellow, very sweet and choice; good bearer. Aug.



YELLOW TRANSPARENT.

**Red Astrachan**—Large, roundish, nearly covered with deep crimson, overspread with thick bloom, very handsome; juicy, good, rather acid; tree of the hardiest, vigorous and a good bearer. July.

**Red June**—Medium size, red; flesh white, tender, juicy, brisk, sub-acid flavor; an abundant bearer. Last of June.

**Sweet June**—An excellent early sweet apple; pale greenish-yellow, medium size, round; fine for table and cooking. Last of June.

**Yellow Transparent**—Russian; fruit pale yellow, roundish, oblate, medium size and good quality; skin clear white at first, becoming a beautiful yellow when fully ripe. Tree somewhat dwarfish, but an upright grower and an early and regular bearer. Ripens before Early

Harvest and keeps ten days longer, making it valuable for market.

### FALL VARIETIES.

**Autumn Strawberry**—Medium, roundish, inclined to oval; streaked with red; flesh white, tender and juicy; productive and desirable. Sept.

**Fameuse (Snow)**—Medium size, roundish, oblate; whitish ground, striped with deep red; flesh very white, juicy and pleasant. Oct. and Nov.

**Maiden Blush**—Rather large, oblate, smooth, regular, with fine evenly shaded red cheek or blush on a clear, pale yellow ground; flesh white, tender, sprightly, with a pleasant sub-acid flavor; bears large crops. Aug. and Sept.

**Milam**—A small red apple of fair quality; hardy, productive and a good keeper. Late fall.

**Rambo**—Medium, yellowish, streaked with red and somewhat dotted; mild, tender and good. Sept. to Nov.

**Ramsdell Sweet**—Rather large, oblong, obscurely conical, regular; dark rich red skin; flesh yellowish, sweet, rich, tender; tree vigorous, upright, productive. Late Fall.

**Utter's Red**—Rather large, oblate, striped with red on a yellow skin; pleasant sub-acid; good quality; popular, hardy northern sort. Late Fall.

**Wealthy**—Large, oblate, skin whitish yellow, shaded deep red and splashed and spotted; flesh white, fine, lively, juicy, sub-acid, very good; chief fault is injury from excessive bearing; one of the most desirable late fall varieties; hardy.

### WINTER VARIETIES.

**Arkansas Black**—Origin, Bentonville, Ark.; tree is an upright grower, young wood very dark; fruit medium to large; fine flavor; skin almost black; flesh yellowish, slightly sub-acid, crisp. Jan. to July.

**Baldwin**—Large, roundish, deep bright red; juicy, crisp, sub-acid, good flavor; tree vigorous, upright; a favorite in the East. Nov. and Dec.

**Ben Davis**—Fruit large, roundish, skin yellowish, splashed and striped, almost covered with red; flesh white, tender, moderately juicy, sub-acid; tree hardy and a free grower; comes into bearing early and very popular in the West. Dec. to March.

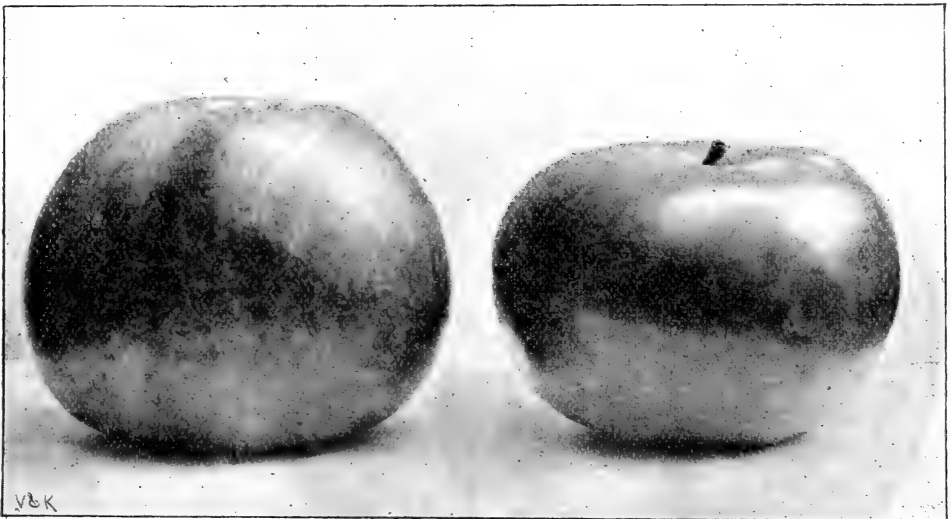
**Bismarck (Dwarf)**—Introduced from New Zealand. Very large, remarkably handsome and showy; red on yellow ground; quality good, hardy and prolific, and bears early. Nov. to Feb.

**Black Annette**—Small, roundish, dark red; favorite in North and Central Iowa; hardy; early winter.

**Dominie**—Medium; skin greenish-yellow with stripes of bright red; flesh tender and pleasant. December.

**Gano**—Large, oblong; dark red on yellow ground (no stripes); seedling supposed to be a cross between Ben Davis and Jonathan; certainly a valuable variety, becoming more popular; tree hardy and upright. Dec. to May.

**Greenville (Winter Maiden Blush)**—Large, yellow, with red cheek; crisp, tender, juicy, with mild sub-acid flavor; quality very good, a splendid eating apple. Dec. to April.



WINTER BANANA.

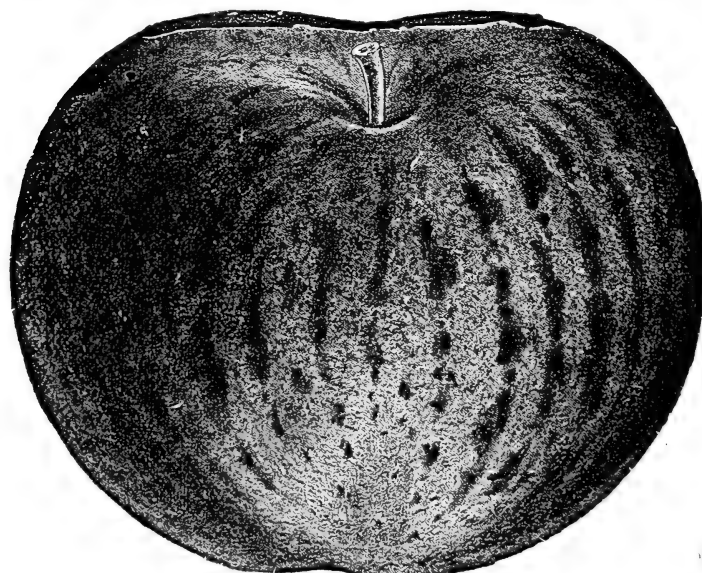
GREENVILLE.

Samuel Miller, a noted fruit grower of Bluffton, Mo., writes: "Your letter received and the box of apples in excellent trim. Have eaten one and pronounce it excellent. It is a most excellent fruit and suits my taste exactly."

G. W. Campbell, president Ohio State Horticultural Society, says: "I think the apple [Greenville] handsome, pleasant flavored, and a good one."

W. W. Farnsworth, secretary Ohio State Horticultural Society: "I ate the sample of Greenville you gave me and found it of very good quality, with a somewhat tougher skin than the Maiden Blush, which will make it a better shipper."

- Grimes' Golden Pippin**—An apple of the highest quality for table use; medium to large size, yellow; tree hardy, vigorous, productive. Dec.
- Huntsman**—Very large, golden yellow with bright red cheek; nearly sweet, fine flavor, aromatic; a choice and high selling market sort; moderately productive. Dec. and Jan.
- Ingram**—A seedling of Janet, tree more upright and fruit larger; roundish to conical; bright and stripes on yellow ground; flesh greenish-yellow, delicate, juicy, sub-acid. Late keeper.
- Iowa Blush**—Medium in size, roundish, conical, whitish with red cheek; quality fine, tart; tree vigorous and hardy on the prairies. Nov. to Jan.
- Isham Sweet**—Fruit large, oblong, conical, greenish-yellow, striped with dull red, beautiful, showy, good; tree hardy, spreading. Nov. to Jan.
- Janet (Rawle's)**—Medium, roundish, oval, greenish-yellow, striped with red; crisp, rich and juicy; one of the best and longest keepers; yields abundantly. Jan. to May.
- Jonathan**—Fruit medium, roundish; skin yellowish, nearly covered with dark red; fine grained, very tender and of excellent flavor, favorite table variety. Dec.
- Kaump**—Medium, yellow, good quality; early and constant bearer; tree vigorous, hardy; very desirable at the North.
- Keeper**—Large and attractive; pale green skin almost entirely covered with rich red; quality first-rate; a remarkable keeper; two years' crops have been exhibited side by side at county fairs, one specimen having been kept during the entire year.
- Lansingburg**—Medium, roundish, yellow, overspread with a grayish red, with a handsome red cheek; flesh firm, sub-acid; good, valuable for its long keeping qualities. Jan. to June.
- Longfield**—Russian; fruit medium to large, yellowish-green, thickly covered with red stripes, decided blush on sunny side; rich, sprightly, sub-acid; tree a free, upright grower, and an early and abundant bearer; hardy northern sort. Dec. to March.
- Mammoth Black Twig**—Very large, dark red; original tree over 70 years old, sound and still bearing; popular market variety in the West; superior to Winesap, which it resembles in color, flavor and keeping qualities; vigorous, hardy, productive. Dec. to April.
- Mann**—Medium to large, deep yellow, juicy, mild, sub-acid; tree hardy, an upright grower, early annual bearer and late keeper. April to May.
- McIntosh Red**—Medium, nearly covered with dark red; tender and juicy; extra quality. Dec. to Feb.
- McMahon**—Russian; large, roundish-obovate; white skin; hardy; a favorite in Wisconsin.



MILWAUKEE.

**Milwaukee**—Seedling of the Duchess. Large, oblate, smooth and regular; yellowish, splashed and shaded with deep red; flavor pleasant with spicy aroma; tree strong and healthy grower and hardy; early and abundant bearer. Dec. to March.

**Minkler**—Medium, roundish, oblate, slightly conical; pale greenish yellow, striped and splashed with two shades of red; flesh yellowish, moderately juicy, solid, sub-acid; tree irregular grower. January to April.

**Missouri Pippin**—Large, oblong, bright red, with numerous gray dots, very handsome

and of fair quality; early and abundant bearer and profitable. December to March.

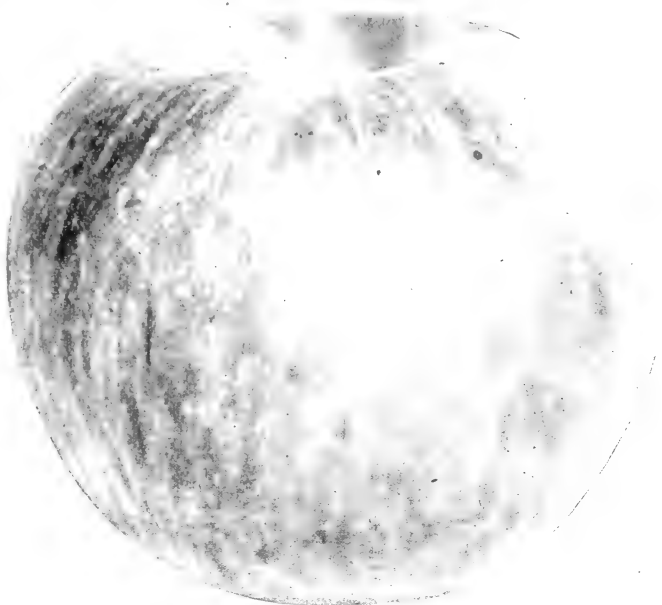
**Northern Spy**—Fruit large, slightly conical, somewhat ribbed; skin greenish-yellow, striped and shaded with dark purplish crimson; flesh white and tender, rich and delicious flavor. Dec. to March.

**Northwestern Greening**—Greenish-yellow, smooth, rich, of large size, good quality and extra long keeper; tree very hardy and vigorous; abundant, annual bearer. A coming variety. Jan. to June.

From Secretary's report Iowa State Horticultural Society: "This variety (N. W. Greening) has been favorably reported on from thirty-eight counties."

Elmer Reeves, Waverly, delegate to Minnesota Horticultural Society, says: "Northwestern Greening is a safe apple to grow. It is a good apple for market and for home use, and is a good keeper."

From paper read by W. A. Burnap, Clear Lake, before Iowa State Horticultural Society: "In spite of adverse reports and criticisms of the Northwestern Greening in 1892, trees set in that year, disregarding opinions and promulgations, persisted in growing vigorously and are now bearing beautiful crops of fine fruit. The behavior of these trees, together with some facts learned later, induced me to set five hundred trees of this variety, and as yet I am not sorry for the venture thus made." In the discussion that fol-



NORTHWESTERN GREENING.

lowed this paper the following additional points were brought out: "That the Northwestern Greening bears exceptionally large fruit and comes into bearing at an early age; that it was not affected by root killing the severe winter of 1898-9, and that it does not blight. It is a colossal apple in Wisconsin, and up there as well as in Minnesota and Northern Iowa, they are very partial to it."

In discussing the best variety of winter apple, B. F. Ferris, of Hampton, in Iowa Horticultural Report, says: "I will gladly give first place to Northwestern Greening as a winter apple. It is a large, showy apple; keeps well, and will sell well. The tree looks and acts like a good one and I recommend it."

**Paradise Winter Sweet**—Large, yellowish-white, blushing in the sun; flavor very sweet; quality excellent; productive. Dec. to March.

**Patten's Greening**—A Duchess seedling from Northern Iowa. Good size; olive green, with some dull red stripes and splashes; flavor pleasant sub-acid, superior for cooking. Dec. to Feb.

**Peerless**—Seedling of Wealthy. Medium, oblate, yellowish, shaded with dark red; tree a strong, upright grower; prized as a dessert and cooking apple; bears young and abundantly; very hardy; bears up to the 47th parallel.

**Perry Russet**—Above medium; yellowish-green, partly covered with russet; quality good; tree hardy; bears about the best of any russet in the West. Dec. to May.

**Pewaukee**—Seedling of the Duchess. Large, roundish, somewhat flattened; bright yellow, streaked and spotted with dark red; flesh white, tender, juicy, sub-acid; very hardy and esteemed in the Northern States. Dec. and Jan.

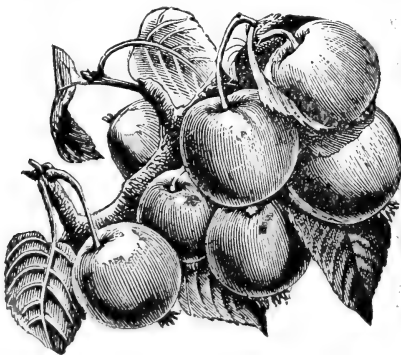
**Price's Sweet**—Large, conical; yellow, splashed and striped and almost covered with red; tender and sweet; good keeper. Dec. to March.

**Red Romanite** (Gilpin and Carthouse)—Rather small; roundish, smooth, handsome, streaked with deep red and yellow; flesh yellow, firm, rich, becoming tender in spring. Feb. to June.

- Romanstem**—Fruit medium, whitish yellow, splashed with russet; flesh tender, juicy, rich, musky flavor; fine dessert apple. December.
- Rome Beauty**—Large, yellow and bright red; flesh yellowish, tender, juicy, sub-acid; tree moderate grower, good bearer. Dec. to March.
- Salome**—Fruit of medium and uniform size; quality very good, which it retains even into summer; claimed to have been kept in excellent condition until October; tree a strong grower, very hardy; holds its fruit firmly even against strong wind storms; an early and annual bearer, although a heavier crop on alternate years. Feb. to June.
- Scott's Winter**—Medium, round, deep red, rather acid, good; very hardy and a long keeper. Dec. to May.
- Stark**—Large, roundish, greenish-yellow, shaded, sprinkled and striped with light and dark red and thickly sprinkled with light brown dots; flesh yellowish, moderately juicy, mild sub-acid; vigorous, hardy. Jan. to May.
- Talman Sweet**—Medium, pale yellow; firm, rich and very sweet; valuable for preserving and baking. December.
- Walbridge**—Medium, handsome, pale yellow, striped with red; crisp, tender, late keeper; vigorous, extremely hardy, one of the ironclads. Jan. to May.
- White Winter Pearmain**—Rather large, conical, ribbed; light yellowish-green with brownish-red cheek; flesh whitish, with a rich, fine flavor; vigorous, productive. Jan. to April.
- Willow Twig**—Large, roundish, greenish-yellow, striped with dull red; flesh firm, rather tough; a late keeper.
- Winesap**—Medium, dark red; sub-acid; excellent, abundant bearer; a general favorite. Dec. to April.
- Winter Banana**—The fruit is beautiful golden yellow, with bright red cheek; the flavor is very distinct and agreeable, surpassing in aroma all other varieties of apples. It is wonderfully productive and bears large clusters of fruit in two years after planting. A valuable market apple. Highest quality, exquisite flavor, unsurpassed by either peach, plum or pear. Tree as hardy as the oak and succeeds in all climates where fruit can be grown.
- Wolf River**—Extra large and handsome; yellowish-white, splashed with bright red, dots large, scattering, light gray; flesh yellowish-white, coarse, dry when ripe; extremely hardy in the Northern States. Dec.
- Yellow Belleflower**—Medium, oblong, apex narrow, conical; yellow with a blush in the sun; tender when ripe; a beautiful and excellent apple in many localities. Dec. to April.
- York Imperial**—Large, angular; yellow, shaded red with indistinct red stripes; flesh yellow, firm, juicy; gaining favor with shippers and planters; one of the best; a good bearer and keeper. Dec. to April.

### CRAB APPLES.

**Brier Sweet**—A novelty in the line of crab apples, being sweet. Sept.



FLORENCE CRAB.

- Florence**—Large, handsome; crimson, splashed with darker red; prolific; valuable. Sept.
- Gen. Grant**—Fruit large; dark red; flesh white; tender and excellent for dessert; tree vigorous and an upright grower. Oct.
- Hyslop**—Almost as large as a Red June; deep crimson; very popular on account of its large size.
- Martha**—Very hardy; profuse bearer; beautiful tree. October.
- Red Siberian**—About an inch in diameter, grown in clusters; bears young and abundantly. Aug. and Sept.

**Transcendent**—Fruit one and one-half to two inches in diameter; excellent, productive; skin yellow, striped with red. Aug. and Sept.

**Whitney**—Large, averaging one and one-half to two inches in diameter; skin smooth, glossy green,

striped and splashed with carmine; flesh firm and rich; a great bearer; tree hardy and handsome grower. Aug. and Sept.

**Yellow Siberian**—Medium; round; golden yellow. Sept.

## CHERRIES.

A great deal of attention is now given to the growing of Cherries. No home orchard is complete without its proportion of Cherry trees, and it is one of the most profitable market fruits. It will succeed on any kind of soil that is not wet.

The Heart and Bigarreau varieties are not so much of a success in the West and South-west as in the Eastern States, but the Russians and Morellos succeed everywhere.

Cherries are now generally worked on the Mahaleb root, a stock that does not throw up sprouts from the roots.

**Black Tartarian**—Large, bright purplish black. Does not succeed in the West as well as some. June.

**Baldwin**—Tree an upright vigorous grower; fruit large, almost round, very dark transparent wine color; unexcelled in earliness, vigor, hardiness, quality and productiveness. New and valuable. May and June.

**Brusseler Braune**—Russian. Large, globular, heart-shaped; very dark red; flesh firm, red, acid; tree vigorous, prolific. Middle of July.

**Dyehouse**—A very early and sure bearer; ripens a week before Early Richmond, which it resembles in color and flavor. May and June.

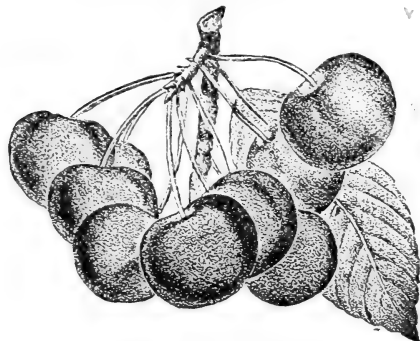
**Early Morello**—Medium; round, oblate; red; small pit, flesh firm. A little earlier than Early Richmond.

**Early Richmond**—Medium size; dark red; juicy, acid, moderately rich; very productive and unsurpassed for cooking; popular and valuable in the West. June.

**English Morello**—Medium to large; round, obscurely heart-shaped; blackish red, rich, acid, juicy and good; very productive and one of the best market sorts. August.

**Late Richmond**—Medium size; oblate; red; flesh juicy, rather acid, moderately rich. July.

**Louis Phillippe**—Fruit large, roundish, regular; color rich dark red, almost purplish black; flesh red, mild, acid. Middle of July.



MONTMORENCY CHERRY.

**Lutovka**—Russian. Large; rich dark red; flesh red, juicy, mild sub-acid flavor; extra hardy. July.

**May Duke**—Large, dark red; rich, juicy; shy bearer in the West. Middle of June.

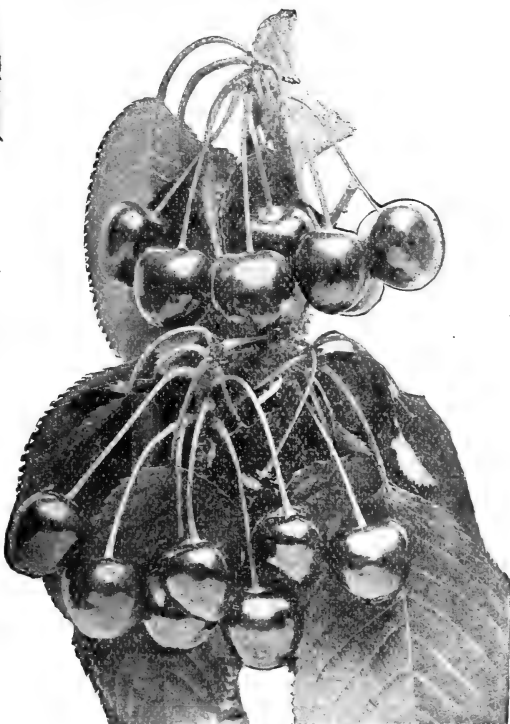
**Montmorency**—A large, roundish, red, acid cherry, larger than Early Richmond and fully ten days later; very profitable. Middle of June.

**Ostheim**—A Russian cherry of recent introduction; very hardy; color dark red, flesh dark, juicy, with pleasant flavor. Middle of July.

**Terry**—Fruit large, brilliant red; rich and vinous, sub-acid flavor; tree upright and handsome; very hardy and productive. New. May and June.

**Vladimir**—Russian; especially adapted to withstand cold climates; size medium, color almost black when fully ripe; juicy and sweet; prolific bearer. August.

**Wragg**—Much like English Morello, same season; more productive and excels in size, yield and quality.



TERRY CHERRY.





WRAGG CHERRY.



**Yellow Glass**—Russian. Large, yellow with red cheek, sub-acid. July.

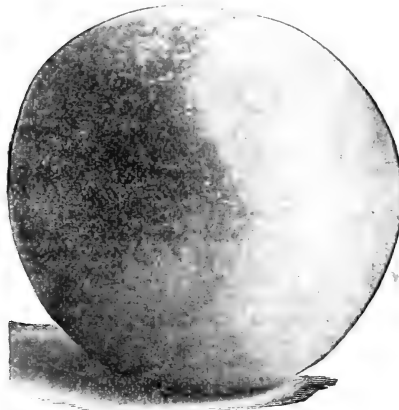
**Improved Rocky Mountain Dwarf**—With its deep green, willow-like leaves, mass of pure white flowers in spring and a load of fruit in summer, it is well worth cultivation as an ornamental shrub. Makes a bush four or five feet high, usually fruiting in two years, producing large quantities of jet black fruit of good size and ripening after all other cherries are gone. Hardy as Wyoming sage bush.

## PLUMS.

Budded on Imported Marianna and Myrobalan Stocks that will not Sprout from the Roots.

### IMPROVED NATIVE VARIETIES.

**America**—Originated by Luther Burbank, the "Wizard of Horticulture." Skin glossy coral red when fully ripe; flesh yellow, moderately firm, juicy and high flavored; fruit large, stone small; ripens early in June.



AMERICA PLUM.

flesh orange color, fibrous, juicy, good for home use. August.

America is described by Mr. Burbank as "a cross between a Native and a Japan plum, the tree having the general appearance of the Native plums, and no doubt will prove hardy throughout the United States." The trees are very rapid, upright growers, with very healthy, glossy leaves; should prove to be a very reliable bearer every year, even when others fail from winter-killed buds or from spring frosts. In early bearing it excels, having the past two seasons produced plums on two-year-old trees, both in the orchard and in the nursery rows.

**Chas. Downing**—Cross of Wild Goose. Fruit quite large, round, red, mottled with darker red. Ripens Aug. 15th to 25th.

**Cheney**—Large to very large; round-oblong; dull purple red; skin thick; sweet. August.

**DeSoto**—Medium; bright red; sweet, rich, of fine quality; extremely hardy and productive. Late.

**Forest Garden**—Large, round-oblong; orange-yellow, overlaid with dotted red; skin medium thick;

**Forest Rose**—Large, round, dark red, vigorous. Late.

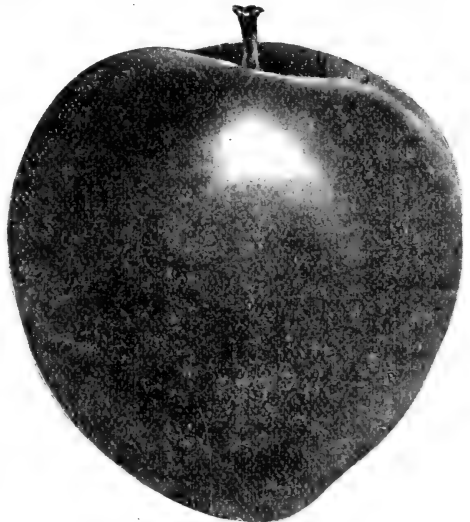
**Golden Queen**—Tree remarkable for its unusually fine, upright growth. Fruit very large, roundish-oblong; bright golden yellow, and of the most delicious quality, quite unexcelled for canning, and very fine for eating out of hand or for slicing and serving with sugar and cream, as for peaches. Ripens latter part of August to Sept. 10th.

**Hawkeye**—Large, round-oblong; purple red; skin thick; carries well to market; tree vigorous. August.

**Hammer**—Cross of Miner. Very large; color mottled red on yellow ground; prolific bearer, nearly freestone.

**Milton**—Rather large, roundish oblong; dark red; skin thin; flesh firm, good quality; the earliest plum in the world.

**Miner**—Medium size, round, clouded and shaded with dull red; excellent for canning and cooking. Late.



GOLDEN QUEEN PLUM.

**Pottawattamie (Improved)**—Perfectly hardy and an immense annual bearer; fruit is yellow, overspread with a bright pink and prominent white dots; flesh yellow, luscious, good. Ripens in July. Introduced and disseminated by the Mount Arbor Nurseries, Shenandoah, Iowa.



IMPROVED POTTAWATTAMIE PLUM.

The Pottawattamie is supposed to be a cross between the Chickasaw plum family and the Swedish Sloe, but is distinct and different from all varieties of plums. Its origin is not definitely known; the parent tree sprang from a Miner plum orchard brought from Tennessee in an early day. The tree is perfectly hardy; an immense annual bearer—twelve years without missing a crop—generally overloaded. Our two-year-old trees are fruiting this year; four-year-old trees have borne a crop of two bushels to the tree. A strong and vigorous grower. The fruit is about the size of the Wild Goose plum—quality much superior. The taste is peculiarly its own—we cannot definitely describe it. Those who have eaten the fruit for the first time often remark, "It has a peach taste." The color is a yellow ground, overspread with a bright pink and prominent white dots, which give it a transparent hue; has no acid taste; thin skinned and when scalded peels off like the tomato, making it unequalled for canning purposes; begins to ripen in our latitude about the 25th of July; season, three to four weeks. The reason the plum pest—known as the curculio—does not injure the Pottawattamie fruit as it does both native and foreign plums, is: The Pottawattamie is a distinct variety of fruit, being separate from the plum species by the widest lines known among the families of stone fruit—the stem fastening on to the pit the same as in the cherry and peach varieties of fruit. The growth is through the pit into the pulp by absorption. Hence

the sting remains local, and as there is no circulation through the pulp it cannot poison the fruit, which is necessary to the life of the insect, and the growth of the fruit forces the deposited egg to the surface, where it perishes and passes away leaving only a scar made by the sting, the fruit maturing thoroughly. The same is true of both the peach and cherry, and the Pottawattamie is possibly a cross of these fruits, and is destined to become the most popular fruit in America.

**Stoddard**—Originated in Iowa; one of the largest native sorts; light pinkish red; very handsome; it has a tough sweet skin, and is of most excellent quality. August.

**Weaver**—Fruit large, purple; flesh firm, rich, juicy, with a flavor resembling the Apricot; stone free; early bearer and very productive. August.

**Wild Goose**—Large, round, light bright red; skin thin; flesh yellow, pulpy, cling, very sweet and juicy when fully ripe; it is advisable to pack a few days before thoroughly ripe if wanted for shipping; should be planted with other plum trees to insure perfect fertilizing of blossom. This variety occupies same position among plums that Ben Davis does among apples. July.

**Wolf**—Origin Iowa. Large; yellow, nearly covered and mottled with red; a perfect freestone; superb for cooking and serving raw with sugar; tree a good grower, hardy, prolific. popular. August.

**Wyant**—Origin Iowa. Large, oblong; purplish red; semi-cling; skin thick; flesh firm; mid-season.

### EUROPEAN VARIETIES.

**Bradshaw**—Large; dark violet red; flesh yellowish-green; juicy and pleasant; productive. Middle of August.

**Coe's Golden Drop**—Large and handsome; light yellow; firm, rich and sweet; one of the best late plums. Sept.

**Damson**—Fruit oval; skin purple, with blue bloom; flesh melting and juicy; rather tart; separates partly from the stone. Sept.

**German Prune**—A large, long, oval variety, much esteemed for drying; color dark purple; very agreeable flavor. Sept.

**Grand Duke**—Fruit large, of fine quality; color violet red; free from rot. Last of Sept.

**Green Gage**—Small, well liked where grown; tree slow grower. Middle of August.

**Lombard**—Rather large; roundish-oval; violet red; juicy, pleasant and good; valuable market variety, not liable to rot; productive. Middle of August.

**Moore's Arctic**—Fruit grows in large clusters; large; dark purple; flavor fine both for preserving and for dessert; a long keeper; vigorous. Sept.

**Richland**—A new domestic plum; tree upright; vigorous; fruit good size, round; color, deep blue; flesh greenish-yellow, juicy, sugary; ripens last of August; very profitable for market; bears abundantly; hardiest blue plum ever offered.

For some time we have been in search of a blue plum specially adapted to the Central West, and after extensive experimenting and thorough trial we confidently offer the Richland as possessing all the requisites of a hardy blue plum that will bear prolifically and give complete satisfaction. Of late years, with the introduction of nectarines, apricots, and the importation of California plums, a prejudice has arisen against the varieties of small plums, the trees of which soon grow into a veritable thicket. Frequent crops of peaches have also helped to crowd these inferior plums off the market and into disrepute in the orchard. Wherever the Richland has been introduced the plum has immediately been restored to favor. The Richland will not sprout from the roots, being budded on stocks that do not send out sprouts. The Richland is the perfection of all that is desirable for both canning purposes and eating direct from the tree.

Prof. Waugh, in his new Plum book, gives the history of the Richland as originating on the farm of Randall Elder, near Richland Center, in Bucks County, Pennsylvania. In color it is a beautiful and peculiar blue, shaded with a tinge of red that gives it a copper color. Indeed, when first introduced, it was known as the "Copper" plum.

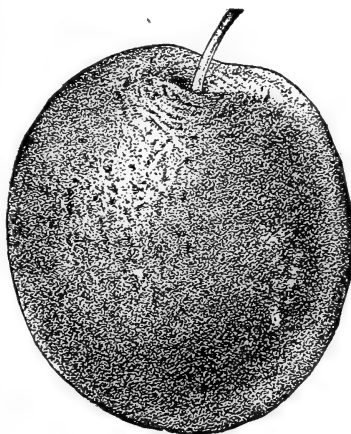
The Richland Plum was introduced in Southwest Iowa six years ago by Mr. M. M. Hamilton, of Clearfield, who has made a success of fruit growing. From his bearing trees the Mount Arbor Nurseries first secured their propagating stock. Since then we have grown the trees in the nursery row and in the experimental orchard with most satisfactory results. We now present this plum to the public confident that it is the very best of its kind for planting in this section.

**Shipper's Pride**—Fruit large; color dark purple, handsome and showy; flesh firm and of excellent quality; productive and valuable for market; hardy. Sept.

**Spanish King**—Seedling of the Lombard. A wonderful variety, not affected by worms or insects and cannot be shaken off by the wind, as the stem attaches to the pit; commands the highest prices. August.

**Tatge**—Originated at Belle Plaine, Iowa, about twenty-five years ago; has stood the winters unharmed; evidently a seedling of the Lombard; is larger, rounder and of darker color; productive and valuable. August.

**Yellow Egg**—Very large, egg-shaped; bright yellow; excellent for canning; good. Last of Aug.



RICHLAND PLUM.

## JAPANESE VARIETIES.

- Abundance**—Large, with pointed apex; yellowish, nearly covered with bright cherry red; bears young and profusely; flesh yellow; excellent quality and one of the most popular of the Orientals. Last of July.
- Burbank**—A valuable sort, ripens later than Abundance, large, globular; orange-yellow, overlaid with red; flesh yellow, firm, sweet, rich. August.
- Chalco**—The result of twelve years' experiments in crossing *Prunus Simoni* (Apricot Plum) with Japan and American varieties, it is the forerunner of a new hardy race of plums; tree a tremendous grower and unsurpassed in productiveness, hardy; fruit ripens just before Burbank; large, flat, deep reddish purple; flesh yellow, very sweet, rather firm, exceedingly fragrant, seed small; like the Apricot Plum the fruit is almost stemless and completely surrounds the older branches; a superior shipping sort, ripening well when picked green, and keeps nearly a month.
- Hale**—Medium, globular; light orange red; flesh yellow, firm, spicy. Very late.
- Ogon**—Medium, roundish, oblate, distinct suture; bright golden yellow; flesh firm, rich, sweet and dry; excellent for canning. First of July.
- Red June**—Large; roundish conical; deep vermilion red, handsome bloom, very showy; flesh lemon yellow, slightly sub-acid; good and pleasant; semi-cling, pit small. July.
- Wickson**—Medium; glowing carmine with heavy white bloom; stone is small and the flesh is of fine texture, firm, sugary and delicious; will keep two weeks or more after ripening; tree gracefully branching and productive. Sept. 1st.

## PEACHES.

*Budded vs. Seedling Peaches*—Peach trees are quickly and easily grown from seed, and in some sections there is a notion prevalent that such trees are more hardy than those grown by the budding process. It is of course understood that all of the recognized standard varieties of peaches originated from chance seedlings. This establishes the fact of the wide difference in fruit from seedling trees, no two being alike. The peach does not reproduce from seed the same sort as planted. It was thought for a time that some varieties had been discovered that would reproduce from seed, but late scientific investigations prove beyond a doubt that it is a pomological impossibility. Thus, in order to perpetuate a variety of seedling that has been found hardy and worthy it is necessary to resort to the budding process.

The Bokara and other named varieties of peaches were discovered to be exceptionally hardy trees that bore large, luscious fruit, and there is no reason why these varieties reproduced by budding should be any less hardy as the fruit continues just as large and luscious. Fruit from budded trees is far superior to that from ordinary seedlings, because the first is selected and the other taken at random. Budded trees are more hardy than seedlings, if the right kind of budded trees are secured. Where exceptional fine fruit has been secured by chance from a seedling tree it is possibly worthy of reproduction, which can only be done by the budding process, as seed planted will not bring forth the same quality of fruit. Budded trees from this variety will prove just as hardy as the original.

**Alexander**—Large size, well grown specimens measuring eight inches in circumference, handsome and regular in form, with deep maroon shade, covered with the richest tint of crimson; rich and good in quality with a vinous flavor; adheres to the stone; should remain on the tree until fully ripe. Last of June.

**Amsden**—Fruit medium; color red, beautifully shaded and mottled with a very dark red, nearly covering the greenish-white ground; flesh white, with a delicious flavor when ripened on the tree. Middle to end of June.

**Bailey**—Medium; yellow mottled and striped with red; freestone with small pit; flesh white and of best quality; profuse bearer, so that fruit must be thinned to secure full sized fruit, and then often the branches must be propped to prevent breaking the tree; tree is dwarfish and of willowy habit of growth. Season medium early.

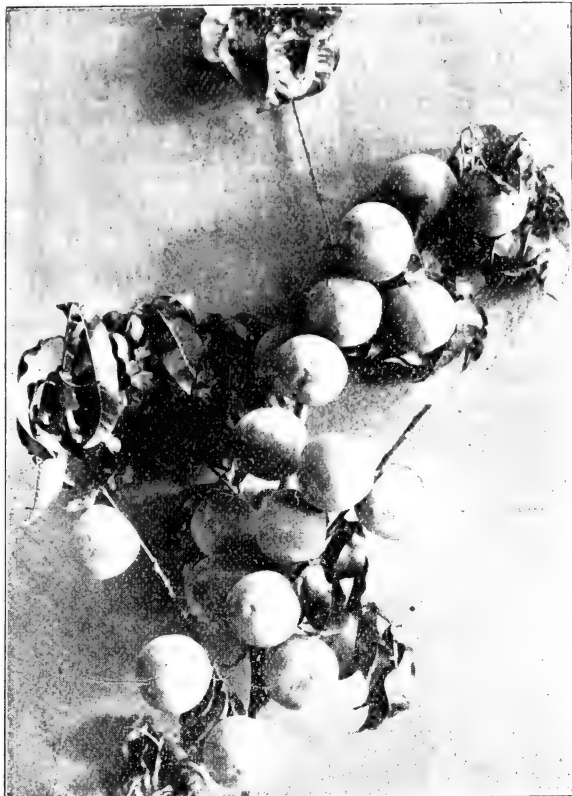
H. W. Lathrop, Iowa City, Iowa, writes the *Orange Judd Farmer*: "In 1851 Dr. Barrows, of Davenport, sold to Jacob Friday a farm lying in Scott County, upon which were three peach trees. Mr. Friday lived upon this farm until five years ago. During that time he raised peaches from these three trees and a few others propagated from them, his annual crop often exceeding 100 bushels. Mr. Friday says that they never failed to produce a good crop during the thirty-eight years he spent on that farm. About thirty years ago a man living about four miles north of Muscatine, got some trees of Mr. Friday and has been raising peaches

ever since. Some twelve years ago Abner Branson, of West Branch, began growing these trees in his nursery. From this planting Dr. J. I. Bailey, of the same place, got six trees and they have produced a good crop every year since they began bearing, some years bearing five bushels to the tree. A peculiarity of this variety is that the trees become hardened before close of autumn."

**Bokara No. 3**—Fruit good size, yellow with red cheek, skin tough, flesh of superior quality; a perfect freestone; ripens fore part of August; its keeping qualities not excelled; does not rot like many sorts, being inclined to shrivel rather than rot; have known them to be kept in good condition with ordinary care for a month after ripening.

**Bokara No. 10**—A large white, freestone peach, with a pink shade on one side; ripens last of July, and is undoubtedly the finest flavored peach grown; very hardy; trees planted here six years have never had even the tips of the limbs killed back a particle; an immense annual bearer, three-year trees producing one and one-half bushels of fine fruit to the tree; no one can miss it by planting of this sort.

The Bokara Nos. 3 and 10 are the hardiest peaches introduced, having stood 28 and 32 degrees below zero and bore full crops of fruit. The seed from which these remarkable varieties originated, was sent from the cold regions of Bokara, Asia, by American missionaries to the State Agricultural College at Ames, Iowa. The trees produced from the seed sent were given different numbers; of these both numbers 3 and 10 proved of exceptional value, and all others were discarded.

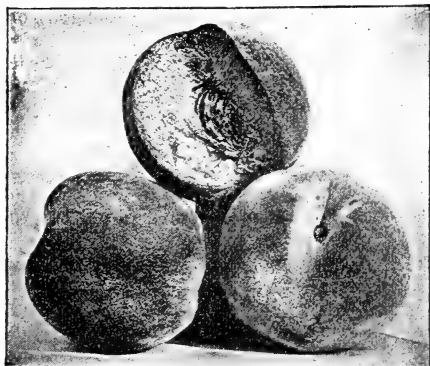


CLIMB OF BOKARA PEACH NO. 3.

Prof. Budd and other eminent horticulturists who have tested them, say they are thirty per cent. hardier than other varieties. Of fine quality and immense bearers.

**Carman**—Large, resembles Elberta in shape; color creamy-white or pale yellow with deep blush; skin very tough, flesh tender, fine flavor and quite juicy. Ripens with Early Rivers. One of the hardiest in bud; in shipping qualities and freedom from rot it is unsurpassed. Stands at the head for a general, long distance, profitable, market variety, in quality ranking superior to anything ripening at the same time. July.

**Crawford's Early**—This beautiful yellow peach is highly esteemed for market purposes. Fruit very large, oblong; skin yellow, with fine red cheek; flesh yellow, juicy, sweet and excellent; productive; free. Last of July.



CROSBY PEACH.

**Crawford's Late**—Fruit of the largest size; skin yellow, or greenish-yellow, with dull red cheek; flesh yellow; productive; one of the best; free. Last of August and September.

**Crosby (Ironclad)**—Medium size, bright orange-yellow, streaked with carmine. On account of its beautiful color and fine quality it commands a ready sale in competition with best standard market sorts. Claimed to be the hardiest of all peaches. Good for both home and market. September 10th.

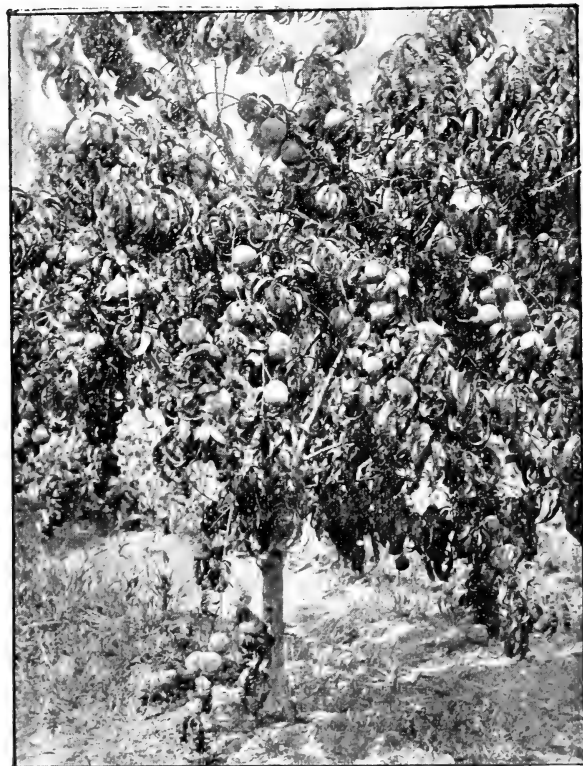
**Champion**—Originated at Nokomis, Illinois; fruit large, beautiful in appearance; flavor delicious, sweet, rich and juicy; skin creamy-white, with red cheek; freestone. August 15th. The peculiarity of this great acquisition is its hardiness, the crowning event in its history being that it has stood a temperature of 18 degrees below zero, and produced an abundant crop the following season.

**Dewey**—Skin deep orange-yellow, with crimson cheek; flesh clear yellow to the stone; juicy, melting, vinous; ripens with Triumph and possesses many points of superiority over that popular variety.

**Early Rivers**—Large, light straw color, with delicate pink cheek; flesh juicy and melting, with very rich flavor. First of July.

**Elberta**—A cross between Crawford and Chinese Cling; very large, well colored; all things considered, the finest yellow freestone in cultivation; no one can go amiss in planting it; fruit perfectly free from rot, and one of the most successful shipping varieties. August 20th.

**Fitzgerald**—Originated on the north shore of Lake Ontario, and in that cold region the original tree bore five successive crops. Tree will bear the second year from planting. The fruit is large, skin bright yellow, suffused with red; flesh deep yellow and of the best quality; seed very small. Freestone. August 10th.



GREENSBORO PEACH.

**Greensboro**—The largest and most beautifully colored of all the early varieties. Double the size of Alexander, ripening at same time. Parts clear from stone when fully ripe. Flesh white, juicy and good.

**Heath Cling**—Large, oblong, creamy-white, slightly tinged with red in the sun; very tender, juicy, melting; very rich and luscious. Sept. 15th.

**Hill's Chili**—Rather large; oval; flesh and skin yellow, rather dry; productive and good for drying; tree very hardy and a good bearer. September.

**Lemon Cling**—Large, oblong, having a swollen point similar to a lemon; skin yellow with red cheek; flesh yellow, firm, juicy and sweet; tree a fine grower. August.

**Mixon Cling**—Large, pale yellow, with red cheek; juicy, rich and high flavored; one of the best clingstone peaches. August 20th.

**Mixon Free**—Large, pale yellow, with deep red cheek; rich and good; one of the best. August.

**Mountain Rose**—Large, red; flesh white, rich, juicy, excellent; one of the best early peaches; should be in every collection. July.

**Northboro**—Medium size; nearly covered with red; flesh crimson; perfect freestone and delicious flavor; origin, Page County, Iowa. August 1st.



**New Prolific**—A fine, large variety, ripening between Crawford's Early and Crawford's Late; is taking a high position for both market and home use; fine, large, attractive, firm; one of the best shippers; flesh yellow, of fine flavor; tree a strong grower, hardy and productive. September.

**Russell**—Above medium size, resembling Alexander in color and type; a perfect freestone; flesh greenish-white, with yellow veins; stone small in proportion to size of peach; texture melting and juicy. July 25th to August 1st.

Originated by J. M. Russell, the famous "Peach King," of Wymore, Nebr., where he has extensive orchards. After several years' experimenting, the Russell is put out as a hardy and desirable sort, especially adapted to this latitude. Bearing the name and recommendation of Russell makes it good enough for anyone.

**Salway**—Fruit large, roundish, deep yellow, with a deep, marbled, brownish-red cheek; flesh yellow, firm, juicy, rich and sugary; a new variety; a late showy market sort; free. Oct.

**Smock Free**—Fruit large, oval; skin orange-yellow, mottled with red; a good market sort. September 15th.

**Stump the World**—Very large, roundish; skin white, with a bright red cheek; flesh white, juicy and good; free. End of August.

**Triumph**—Earliest yellow flesh peach, with good eating and shipping qualities. Ripens with Alexander, blooms late; sure and abundant bearer; strong, vigorous grower. Fruit good size, yellow, with red and crimson cheek.

**Wager**—Fair size; good quality; flesh bright yellow; skin golden-yellow, with a red cheek; tree eminently hardy, healthy and long-lived, yielding good crops when most sorts fail to bear; highly esteemed for canning. Early in August.

**Wonderful**—Originated in New Jersey; large to very large, uniform in shape and size; color rich golden-yellow, overspread with carmine and crimson; flesh yellow, highly flavored and firm, bright red at pit, which is small and parts freely from the flesh. Ripe in October and keeps well.



## PEARS.

The growing of this valuable fruit for both home and market purposes cannot be too strongly urged. It far exceeds the apple in its melting, juicy texture, rich refined flavor; and the range of varieties is such that by a judicious selection, the ripening season beginning in July can be continued in succession into winter. It is a mistaken opinion among some persons that standard pears are a long time coming into bearing. Many of the varieties begin to bear in four to six years after transplanting, and some of the newer varieties, such as the Kieffer, will produce fruit as soon as the dwarf pear, which is usually two to three

DUCHESS D'ANGOULEME PEAR.

years after transplanting. The pear when once in bearing seldom fails to produce a crop of fruit annually.

*Gathering Pears.*—In order to retain the juice and best flavor, summer pears should be gathered at least ten days before they are ripe, and autumn pears at least two weeks; winter varieties as soon as the leaves begin to drop.

*Thinning the Fruit.*—When the trees are heavily laden the fruit should be thinned when about one-third grown, else the fruit will be poor and the trees injured.

Varieties marked with a (\*) opposite grown both as Standards and Dwarfs.

\***Bartlett**—Large size, with often a beautiful blush to the sun; buttery, very juicy and high flavored; bears early and abundantly; very popular. August.

\***Beurre d'Anjou**—Large, greenish, sprinkled with russet, sometimes shaded with dull crimson; flesh whitish, buttery, melting, with a high, rich, vinous, excellent flavor; very productive; succeeds well on quince; should be in every orchard. September to December.

\***Clapp's Favorite**—Very large; yellowish-green to full yellow when ripe, marbled with dull red in the sun, and covered with small russet specks; vinous, melting and rich. July.

**Duchess d'Angouleme**—Very large; dull greenish-yellow, streaked and spotted with russet; flesh white, buttery and very juicy, with a rich and very excellent flavor; budded on the quince, to which stock this variety seems well adapted, it is always fine; the large and fine appearance of this fruit makes it a general favorite; dwarf. September and October.

**Early Harvest**—Large; golden-yellow, with a fine red cheek; sells well on the market on account of its size and color and earliness in ripening. Standard. July.

**Flemish Beauty**—Large, beautiful, juicy, melting, rich and fine; good bearer; hardy everywhere. Standard. August and September.

**Garber**—One of the Japan hybrids; earlier and harder than Kieffer; hardy, productive, early bearer. Standard. September and October.

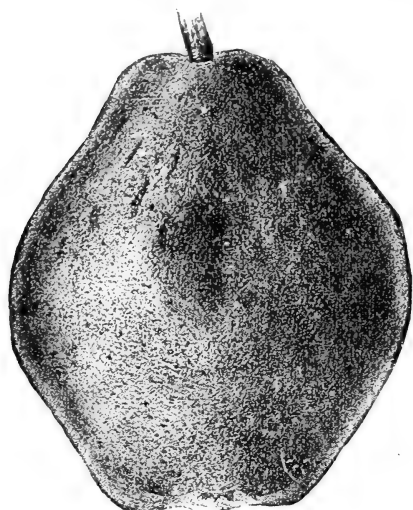
**Idaho**—Color greenish-yellow, with russet spots; large, sometimes weighing 1½ lbs.; roundish; good flavor and juicy; very hardy and adapted to the North. Standard. Sept. and Oct.

**Kieffer**—This pear was raised from seed of the Chinese Sand Pear, accidentally crossed with the Bartlett or some other kind grown near it. Tree has large, dark green glossy leaves, and is of itself very ornamental; is an early and very prolific bearer; the fruit is of good quality, wonderfully showy, and is valuable for the table and market; it never rots at the core, and is as nearly blight-proof as it is possible for any pear to be. September and October.

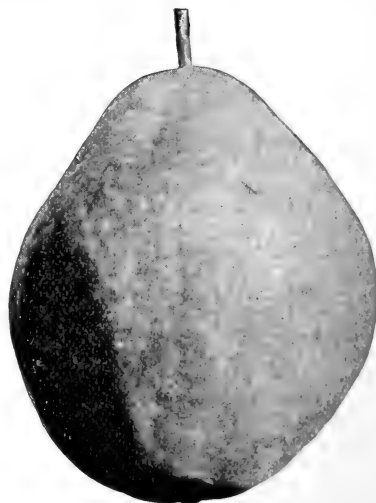
**Koonce**—Medium large; yellow, with carmine cheek; a strong, upright grower; hardy; one of the earliest successful market pears. Standard. July and August.

**Lincoln Coreless**—Large, yellow, pyriform. Late winter.

**Mongolian Snow**—Large, perfect shape; rich yellow, with carmine blush; tree hardy and a strong, upright grower; the hardest and best of all the Chinese varieties; will prove valuable up to the 42d parallel; profuse bearer and much better quality than Kieffer; leaves clear, handsome and perfect; absolutely blight-proof. Standard. September and October.



KIEFFER PEAR.



MONGOLIAN SNOW PEAR.



The Mongolian Snow is the best adapted of any pear to all climates and conditions; it has no off years, bears productively every year; its color is unsurpassed, and it stands at the head for keeping qualities; best for canning and for the table of any winter pear; best for shipping, and sells at highest prices on the market. It is not unusual for this great variety in full bearing to net \$5.00 per tree. Thus 500 trees on four acres of ground will make any man a comfortable living.

Salesmen need have no hesitancy in recommending the Mongolian Snow as the best pear for this section, where nearly all others have proved a failure. Here is what a prominent fruit grower of Southwest Iowa says of this variety:

"RED OAK, IOWA, October 19th, 1901.

"Now concerning the pears, I will give you a few facts in regard to my experience with the Mongolian Snow. Some six or seven years ago I secured a number of young trees from Prof. Budd, and they have never shown a trace of blight, not even a twig or leaf, and are perfectly hardy. Last season they bore a fine crop. This year a severe storm blasted all the fruit on the south side while the trees were in bloom. Then two severe storms from the north blew off lots of the fruit just before it was ripe. Yet when I gathered the crop the trees yielded nearly a bushel to the tree of beautiful pears, large and very fine, quality good enough for anyone.

E. L. WARE."

**Seckel**—Small; skin rich, yellowish-brown when ripe, with a dull, brownish-red cheek; flesh very fine grained, sweet, exceedingly juicy, melting, buttery; the richest and highest flavored pear known. August and September.

**Vermont Beauty**—One of the hardiest; fruit medium size, roundish; skin yellow, nearly covered with carmine; flesh melting, juicy, fine flavor; one of the most desirable new varieties. Standard. October.

**Wilder Early**—Size medium; greenish-yellow, with a brownish-red cheek and numerous dots; flesh white, fine grained, melting, excellent; about three weeks earlier than the Bartlett. Standard.

## APRICOTS.

**Alexander** (Russian)—An immense bearer; fruit of large size, oblong, yellow flecked with red; flavor sweet and delicious; tree hardy; one of the best. July 1st.

**Budd** (Russian)—Of large size; white, with red cheeks; flavor sweet, juicy, extra fine; a hardy, strong grower and profuse bearer; the best late variety. August 1st.

**Harris**—A new variety, recommended for its good bearing qualities and extreme hardiness. It was brought into notice by orchardists at Geneva, N. Y., who prize it highly as a market variety. It is equal in size and quality to the best cultivated sorts.

**Moorpark**—One of the largest; orange, with a red cheek; firm, juicy, with a rich flavor; very productive. July.

**Nicholas** (Russian)—Medium, white, sweet, melting. July.

**Superb** (Russian)—Beautiful yellow with red on the sunny side; rich, golden flesh and a better, more constant bearer than any other variety. The seed from which this variety was grown was introduced from Russia into Nebraska by the Mennonites. July.

S. B. Heiges, government pomologist at Washington, D. C., recommends this choice apricot as the equal of any he ever tasted. Its hardiness is unquestioned.

## QUINCES.

**Champion**—A variety originated in Connecticut. The tree is a prolific and constant bearer; fruit averaging larger than the Orange, more oval in shape; quality equally fine and a longer keeper. Oct. and Nov.

**Mammoth**—The largest Quince in cultivation. Brought into notice in the vicinity of Kansas City, Mo., where it is fruited extensively, and is attracting great attention on account of its being large in size, perfect in shape, very rich and aromatic; tree vigorous, productive, an early bearer and free from blight.

**Orange**—Large, roundish; bright golden-yellow; cooks tender and is of very excellent flavor; valuable for preserves or flavoring; very productive. Sept.

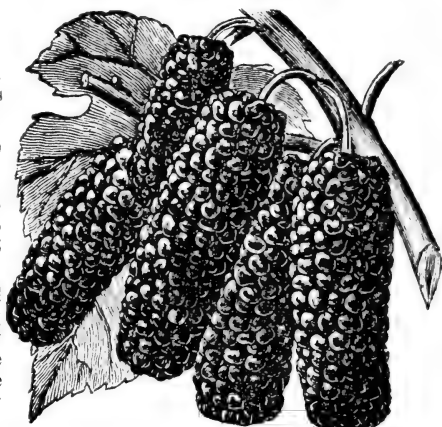
## MULBERRIES.

**Downing's Everbearing**—Color blue black; flesh juicy, rich, sugary, with a sprightly, vinous flavor; tree ornamental as well as fruitful.

**Hick's Everbearing**—Wonderfully prolific. Said to be superior to the Downing.

**New American**—Fruit of the largest size, black, delicious in flavor; an attractive lawn tree, with very large leaves; of rapid growth; hardy.

**Russian**—This makes a good shade and ornamental tree, growing full and symmetrical, holding its leaves late in the Autumn. It is a very rapid grower, bears fruit at two or three years of age, and every year. Color of the fruit varies some, but is generally black; very valuable.

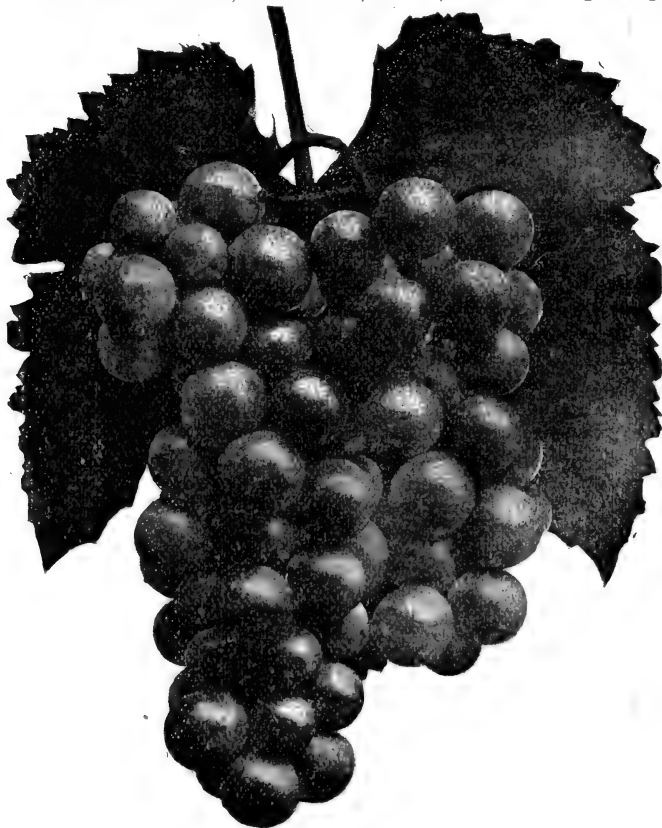


DOWNING'S EVERBEARING.

## GRAPES.

**Agawam** (red)—Large, round, early and of great vigor of growth; rich, high, peculiar aromatic flavor.

**Brighton** (dark red)—A cross between the Concord and Diana Hamburg; bunches large, berries of medium size; flesh sweet, tender, and of the highest quality; ripens early.



CAMPBELL'S EARLY.

**Campbell's Early** (black)—Its strong, hardy, vigorous growth; thick, heavy foliage; very early ripening and abundant bearing of large and handsome clusters of excellent quality, combined with the most remarkable keeping and shipping qualities, form a combination equaled by no other grape. Ripens with Moore's Early, but, unlike that variety, it has kept sound and perfect, both on and off the vine, for weeks after ripe. In quality it is unrivalled by any of our early market grapes. It is, both as to cluster and berry, of large size, of a glossy black color with a beautiful blue bloom; pulp sweet and juicy, free from foxiness; seeds small, few in number and part readily from the pulp. The King of American Grapes.

**Clinton** (black)—Bunches medium size, compact, shouldered; berries small; flesh acid, vinous flavor. Vines hardy, vigorous and productive, but improves by hanging long on the vines.

**Concord (black)**—Bunches large, berries large, round; skin thick and covered with bloom; flesh juicy, sweet. Vine very hardy, vigorous and productive; at present the most popular of all our native sorts.

**Delaware (red)**—Still holds its own as one of the finest grapes; bunches small, compact, shouldered; berries very small, round; skin thin; flesh very juicy, without any hard pulp; exceedingly sweet, spicy and delicious flavor; vine moderately vigorous; very hardy and productive.

**Diamond (white)**—In vigor of growth, texture, foliage and hardiness of vine, it partakes of the nature of its parent, Concord, while in quality the fruit is equal to many of the best tender sorts, and ripens two or three weeks earlier than Concord. The color is a delicate greenish-white, with a rich, yellow tinge when fully ripe; skin smooth and entirely free from the brown specks and dots which characterize many of the white varieties; very few seeds, juicy and almost entirely free from pulp. Berry about the size of the Concord and adheres firmly to the stem. One of the best of recent introductions.

**Elvira (white)**—Ripens about with Catawba; a very strong, healthy and robust grower, very productive; bunch and berry of medium size, and very compact.

**Eaton (black)**—One of the largest, both in bunch and berry; clusters have been exhibited weighing 30 oz.; berries one inch in diameter; leaf large, thick and leathery; berries round, covered with heavy blue bloom; pulp tender, separating from the seeds.

**Green Mountain (white)**—This extra early delicious grape was found growing on the side of the Green Mountains in Vermont, at an altitude of 1,400 feet; supposed to be a chance seedling; color greenish-white; skin very thin; pulp exceedingly tender and sweet; contains but one or two seeds only, which separate from the pulp with slightest pressure; quality superb.

**McPike (black)**—This grand variety was originated in Southern Illinois; has taken premiums at Ohio, Illinois and Missouri State Fairs. The McPike is a seedling of the Worden; perfectly hardy with a leaf unprecedented; it is earlier than the Concord; bunches large, even and compact; berries even in size, covered with a beautiful bloom, blue black in color; ripens uniformly and has generally the appearance of the Worden. The berries are of mammoth size, being three inches in circumference and of superb quality—by far the best grape grown.

**Martha (white)**—A seedling of the Concord which it resembles in growth and hardiness; bunch of good size, and berry large, of pale green or light color; sweet, juicy, sprightly; ripens with Concord.

**Moore's Early (black)**—A large black grape of the Concord type, the entire crop ripening before the Concord; bunch medium, berries large with blue bloom, flesh pulpy, of medium quality. Vine hardy, moderately productive, better as it attains age. Planted extensively as a market sort.

**Niagara (white)**—A magnificent white grape and very valuable for both garden and vineyard; a rank grower and very productive of beautiful bunches of the largest size; berries large with a tough skin; quality good; ripens about with Concord.



DIAMOND.

**Pocklington** (white)—Is a seedling from Concord; vine hardy, both in wood and foliage; strong grower; called a white grape, but the fruit is a light golden-yellow, clear, juicy and sweet to the center, with little or no pulp; bunches very large, sometimes shouldered; berries round and very large and thickly set; quality, when fully ripe, much superior to Concord; ripens with the Concord.

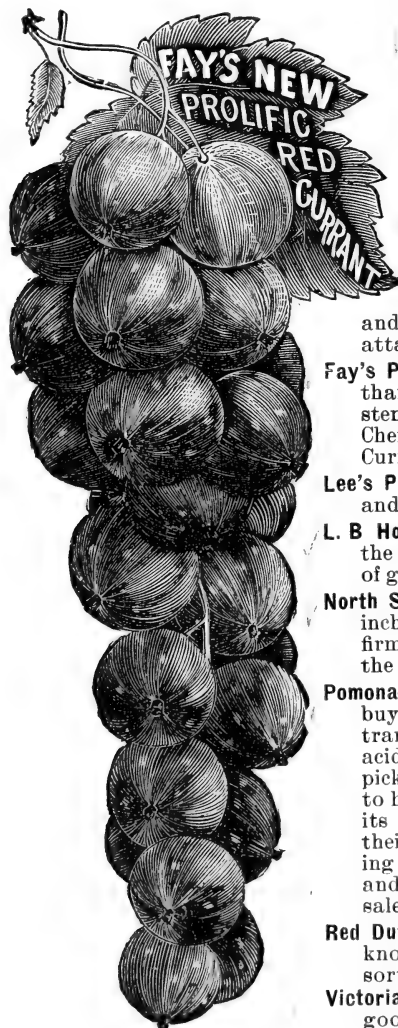
**Vergennes** (red)—A Vermont seedling; hardy, vigorous and productive; quality good.

**Worden** (black)—This variety is a seedling of Concord, which it greatly resembles in appearance and flavor, but the berries are larger, the fruit is better flavored and ripens several days earlier.

**Wyoming** (red)—A very early, medium sized red variety; bunch small but compact; skin bright red; sweet, very agreeable were it not for the slight foxy odor apparent when first gathered.

**Woodruff** (red)—Of ironclad hardiness. A rank grower and very healthy. The fruit is large in bunch and berry, attractive, shouldered, sweet and of fair quality. Desirable as a market variety. Ripens soon after Concord.

## CURRENTS.



**Black Champion**—Bunches are very large and the flavor of the fruit particularly delicious; it hangs long on the bushes.

**Cherry**—The largest of all the red Currants, berries sometimes measuring half an inch in diameter; bunches short, plant very vigorous and productive when grown on good soil and well cultivated.

**Crandall** (black)—A native, superior and distinct from the European black varieties and without their strong odor; wonderfully productive, a strong, vigorous grower; large size,  $\frac{1}{2}$  to  $\frac{3}{4}$  inches in diameter; easily picked; can be shipped farther and kept longer than any other small fruit; free from all attacks of insect enemies.

**Fay's Prolific**—Color deep red; a great bearer; stems longer than Cherry and berries hold their size to the end of the stem better; quality first-class, not quite so acid as the Cherry; claimed to be the most prolific and best of all red Currants.

**Lee's Prolific**—Black, large and of superior quality; vigorous and productive.

**L. B. Holland** (Long Bunch Red)—Another new variety from the extreme North; season late, very prolific; long bunches of good sized fruit.

**North Star** (red)—The average length of the bunches is four inches; the fruit is superior, very sweet and rich in quality; firm, a good market berry; desirable as a dessert fruit in the natural state and unequaled for jelly.

**Pomona**—This Currant is of good size and always attracts the buyer on market. It is a beautiful clear, bright, almost transparent red, has but few and small seeds, is much less acid, or sweeter than any of the common sorts. It is easily picked, hangs a long time after ripe, and is one of the best to hold up in shipping or on the market. It also retains its foliage long after all other sorts have shed most of theirs, thus shading the fruit and protecting it from scalding by the hot sun. In one year the crop of fruit from six and one-half acres of Pomona Currants was sold at wholesale for \$4,076.00 or over \$627.00 per acre.

**Red Dutch**—The standard old variety; excellent and well known; a great bearer and a very profitable market sort.

**Victoria**—Large, bright red, with very long bunches; late; a good bearer.

**White Dutch**—An excellent and well known sort; good quality.

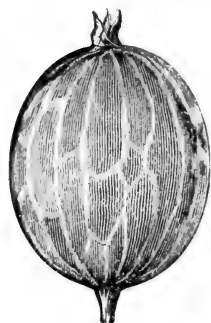
**White Grape**—Very large, yellowish-white; sweet, or very mild acid, excellent quality and valuable for the table; the finest of the white sorts; very distinct from White Dutch, having a low spreading habit and dark green foliage; very productive.

## GOOSEBERRIES.

**Champion**—A new variety introduced here from Oregon where it originated; fruit large, round; an immense bearer and entirely free from mildew.

**Downing**—Fruit much larger than Houghton; roundish, light green, with indistinct veins; skin smooth; flesh soft, juicy and fine flavored; vigorous and productive; a valuable American sort.

**Golden Prolific**—An American seedling of the English type said to be free from mildew; fruit large, deep golden-yellow, very handsome and attractive; of excellent quality; hardy and a good grower.



PEARL.

**Houghton**—A medium sized American variety, which bears abundant and regular crops, and never mildews; fruit smooth, red, tender and very good; very valuable.

**Industry**—The best English Gooseberry yet introduced; of vigorous, upright growth, and a greater cropper than any known variety, and much less subject to mildew than other English sorts; berries of the largest size, one and one-half inches in diameter, and of most excellent flavor, both pleasant and rich; color when fully ripe, dark red.

**Pearl**—The most prolific Gooseberry known; a native American variety, thoroughly tested and pronounced the best by many authorities; berries one-half larger than the superb Downing, which it resembles in color and shape; originated on the Canadian experimental farm at Ottawa by crossing Houghton and Ashton's seedling; vigorous, healthy bush, free from mildew; in flavor this splendid sort is almost free from acid, and is a great favorite for canning.

**Red Jacket (Josselyn)**—A purely American variety, rivaling the foreign sorts in size. A strong thrifty grower, entirely free from mildew; very hardy and exceedingly productive. Berries large, smooth, of a beautiful ruby red, and of fine flavor.

**Smith's Improved**—Large, oval, light green, with bloom; flesh moderately firm, sweet and good; vigorous grower.

## RASPBERRIES.

**Babbitt (black)**—This remarkable berry originated from a chance seedling at College Springs, Iowa, on the farm of C. E. Babbitt, a life-long fruit grower. It stands the severest winters without injury, and is the least affected by drouth during its fruiting season of any raspberry we have ever known, and enjoys perfect freedom from disease. The growth is tree form, vigorous, firm and very stocky. The berry is jet black, large, firm and of superior quality; it has a flavor superior to that of any raspberry we have ever tasted; delicious and sugary.

The Babbitt is a new candidate for favor with the planters, which the introducers offer to the public, confident that it will head the list of black-cap raspberries.

It is enormously productive, yielding over 2,500 quarts per acre, under the same conditions 50 per cent. more fruit than Older, Gregg, Hopkins, Palmer, or any other standard variety. Ripens early, usually



BABBITT RASPBERRY.

about June 1st. and continues ripening great loads of fruit for a long season; in fact, it has everbearing qualities that are very pronounced, ripening considerable fruit of good quality as late as September 1st. A large number of berries form on the new growth, when an abundance of fine, ripe fruit is ready for picking and marketing. It commands the highest market price and has no equal for family use.

The Babbitt is given prominent notice in United States Agricultural Report of 1892.

Introduced by the Mount Arbor Nursery Company, Shenandoah, Iowa. We have exclusive control of this rare sort, but are offering it within reach of all. No one should be without it.

**Brandywine** (red)—An enormous producer; berry beautiful, highly colored and firm; the most valuable red raspberry for transporting long distances, and brings a high price in market.

**Cardinal** (red)—The most remarkable plant of cane growth yet introduced; canes not injured by temperature of 26 degrees below zero; color dark red, almost purple; very productive; berries large and round. The best of its kind.

**Columbian** (purple)—Fruit very large; dark red, bordering on purple; plant a very strong, robust grower, hardy and wonderfully productive.

**Cumberland** (black)—The largest black raspberry known. Has been well tested in nearly all sections, giving thorough satisfaction. In hardiness and productiveness it is unexcelled by any other variety. In size the fruit is simply enormous, far surpassing any other sort. The quality is very similar and fully equal to Gregg. The fruit is firm and will stand long shipments. It is a mid-season variety. The bush is exceedingly healthy and vigorous, and well adapted for supporting its load of large fruit.

**Cuthbert** (red)—A remarkably strong, hardy variety. Stands the Northern winters and Southern summers equal to any. Berries very large, measuring three inches around; conical; rich crimson; very handsome, and so firm they can be shipped hundreds of miles by rail in good condition; flavor is sweet, rich, and luscious.

**Golden Queen** (yellow)—Seedling of Cuthbert, equaling that variety in vigor of bush and productiveness; fruit large; color a pure yellow; quality best; a decided acquisition.

**Gregg** (black)—A popular market sort; firm, meaty and of fine flavor; it is not entirely hardy, but suffers during unusually severe winters; it is by far the best late black-cap and the largest of any.

**Kansas** (black)—A valuable second early variety; large, handsome, firm, excellent quality; very hardy and productive; one of the best.

**Loudon** (red)—Canes strong and hardy, and berries large size, good color and excellent quality.

**Miller** (red)—Extremely hardy, very productive; one of the earliest to ripen; an excellent shipper, of good quality and attractive color.

**Nemaha** (black)—Originated in Nemaha County, Nebraska. A seedling of the Gregg, very similar, but later and better quality; stands more upright and much hardier; a good sort for dry prairie sections.

**Older** (black)—Originated in Iowa and stands the severest winters well; coal black; large size; five days earlier than Gregg; reliable, productive and a drouth resister.

**Palmer** (black)—A standard early variety; large size and productive; hardy and of fine quality.

**Shaffer's Colossal** (purple)—Colossal, both in bush and berry; carries to market well; excellent to dry and unsurpassed for canning; berry dark crimson in color and excellent in quality; a very valuable variety; does not sucker, but roots from tips like black-caps.

**Turner** (red)—A beautiful red berry, of fine size and excellent quality; one of the hardiest and most productive varieties known.

## BLACKBERRIES.

**Ancient Briton**—Recommended as a first-class, hardy variety, in all sections subject to severe winters; vigorous, healthy; fruit good sized and of fine quality for either home use or the market.

**Certificate of Inspection.**—The Mount Arbor Nurseries are annually inspected by the State Entomologist from the Iowa Agricultural College at Ames, and every precaution known to science is taken to prevent the inception of any dangerous insect or plant disease. The growing nursery stock, packing grounds and entire premises are thoroughly scrutinized by the expert, and a fac-simile of his statement is attached to every shipment, large or small, that is sent out.

**Early Harvest**—This is one of the earliest Blackberries in cultivation; a compact, dwarf grower.

**Erie**—Enormously productive; perfectly hardy; very large and of good quality; combines productiveness, hardiness, earliness, large size and good quality—five strong points of merit in its favor.

**Ohmer**—As large as the largest; as hardy as any good berry; very productive, strong grower, finest quality and late.

**Rathbun**—Flesh juicy and high flavored, soft throughout, no hard core, sweet and delicious; carries well to market. Propagates from the tips.

**Snyder**—Extremely hardy, enormously productive, medium size; no hard, sour core; only a few thorns and they are short; most prolific Blackberry grown.

**Stone's Hardy**—Vigorous grower; berry glossy black and good flavor; a little later than Snyder.



RATHBUN BLACK-BERRY.

## STRAWBERRIES.

Those marked (p) are destitute of stamens and are termed pistillate, and unless a row of perfect flowering variety is planted at intervals they will produce imperfect fruit and but little of it; properly fertilized, as a rule, they are more prolific than those with perfect flowers.

**Bederwood (s)**—Large, roundish, conical, bright scarlet, moderately firm, fair quality; plant vigorous and very productive. A very valuable early sort for home use or near market, following Michel's Early.

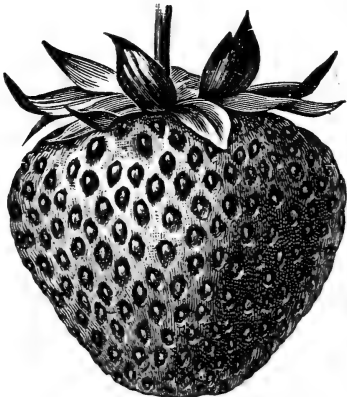
**Bisel (p)**—For quarts and quarts of large, beautiful berries this variety has few equals. Above the average in firmness; flavor sweet and pleasant; a profitable and early variety in rich soil.

**Bubach (p)**—A wonderful berry in vigor of plant and yield of fruit even under careless culture. The fruit is in many instances enormous, and the average is large and handsome. It is exceedingly productive and very valuable for a nearby market. Mid-season.

**Captain Jack (s)**—A most vigorous grower, healthy and productive; berries large, handsome and solid.

**Crescent (p)**—Medium size, bright light scarlet, not very firm; continues a long time in fruit; plant very vigorous and hardy, and will produce good crops under greater neglect than any other Strawberry, and is a good paying variety for both family use and market.

**Dunlap (s)**—Greatest all-round variety yet produced; of the Warfield type, with perfect blossom and ripening at same time; hardy, productive and able to hold its own under any "rough and tumble" method of culture.



GANDY STRAWBERRY.

**Enhance (s)**—A vigorous and healthy grower, with dark green foliage; one of the most prolific in pollen; berries large size, firm, bright crimson color.

**Gandy (s)**—A reliable late variety, berries bright crimson, very uniform in size and shape, large and firm; plants vigorous and healthy.

**Great American (s)**—The largest variety cultivated; specimens have measured nine inches in circumference.

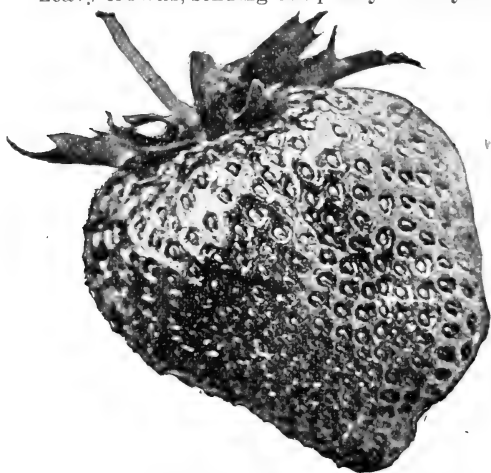
**Haverland (p)**—Profitable by reason of its productiveness and earliness; hardy, firm enough for distant shipment; requires deep, heavy soil; fruit large, handsome and good, though not of the best quality; rather long in shape and of a bright glossy crimson.

**Lovett (s)**—The plants are rank and vigorous growers; fruit large and uniform size, firm, of a high color, splendid flavor. One of the best for general planting.

**Michel's Early (s)**—The earliest of all good and reliable Strawberries; large and very uniform; color beautiful scarlet; shaped handsomely conical; quality very fine; pronounced by all who have tested it to be the finest.



**Nick Ohmer (s)**—To see the plants of this is pleasing to the eye. It is a strong grower with heavy crowns, sending out plenty of very strong runners. It is probably not surpassed in healthy, vigorous growth and great productiveness by any variety. It has a perfect blossom. The fruit is of the largest, a giant among strawberries. It is never misshapen. Dark glossy red, firm and of excellent flavor.



NICK OHMER STRAWBERRY.

**Rough Rider (s)**—A good runner and enormously productive; berries very large, dark red color like Gandy; extreme firmness enables the grower to ship to distant markets; season late.

**Shuckless (s)**—Large, conical, light crimson; parts from the calyx in picking; mid-season.

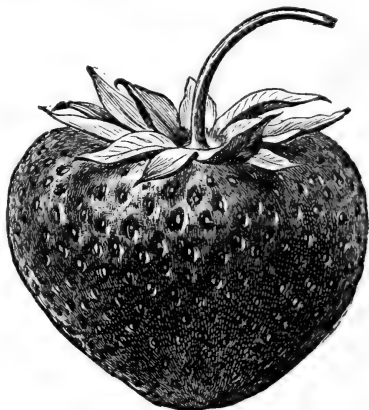
**Sharpless (s)**—This is one of the very best varieties in certain soils; large in size; delicious flavor, good bearer, bright color; specimens exhibited weighed 1½ ounces, and measured seven inches in circumference.

**Splendid (s)**—We can offer it to our customers with great confidence; bears abundantly; fruit large and quality above the average.

**Warfield (p)**—Quality pleasant, good; the plant is a vigorous grower with bright, healthy foliage; early.

**Parker Earle (s)**—Plant very robust, enormously productive; flowers perfect, protected from late frosts by abundant leaves; berries regular, conical with short neck, glossy, scarlet crimson, firm, no hollow core; carries finely in long shipments, presents an attractive appearance in the crate, and brings the highest price in market; season early to medium.

**Princess (p)**—A vigorous, healthy sort, very productive of large, regular-sized berries; good quality, firm and holding size well to end of season.



SPLENDID STRAWBERRY.



COLUMBIAN MAMMOTH WHITE ASPARAGUS.

A hardy, tree-like shrub, attaining a height of ten feet; of compact and symmetrical habit. It would be an ornament to any yard for its foliage alone. Fruit resembles small currants, but of richer taste, and literally covers the twigs and branches. If not gathered will remain on plants through the winter. Esteemed for tarts, pies, jellies, etc.

## ASPARAGUS.

**Columbian Mammoth White**—Color white and remains so as long as fit for use; robust and vigorous; preferred by canners.

**Conover's Colossal**—A mammoth variety of vigorous growth, sending up from fifteen to twenty sprouts each year, from one to two inches in diameter; fruit deep green, and crown very close.

## BUFFALO BERRY.



BUFFALO BERRY.



From "Colored and Variegated Trees and Shrubs for Ornamental Planting," by J. L. Budd, of Ames: "BUFFALO BERRY—This hardy native of the northwest exhibits its silvery leaves and twigs in summer, its load of bright berries in autumn, and in winter its silvery-white bark and twigs have special interest."

From "Desirable Flowering Plants and Shrubs," by Eugene Secor, of Forest City: "Buffalo Berry ought to be better known and more generally planted. It is adapted to our climate and is ornamental in appearance."

## LUCRETIA DEWBERRY.

This valuable and popular fruit is receiving deserved recognition everywhere. It is really a low-growing trailing blackberry, that can readily be trained to a stake, keeping the fruit off the ground. Perfectly hardy, healthy, remarkably productive, with large, showy flowers. The fruit, which ripens early, is often one and one-half inches long by one inch in diameter; soft, sweet and luscious throughout, with no hard core; ripe before last raspberries are gone. Should be planted in rich soil and trimmed back every year. Very profitable and easy to care for. We can highly recommend this variety.



LUCRETIA DEWBERRY.

## DWARF JUNE BERRY.

This fruit is borne in clusters; reddish-purple changing to bluish-black; flavor mild and excellent as a dessert fruit or canned; the blossoms have white petals completely enveloping the bush.

Juneberry or blueberry is said by Prof. Bailey to be practically identical with huckleberry in an improved form. Prof. Budd highly recommends it both for the home and the market, yielding at the rate of 2,600 quarts per acre and selling readily at fifteen cents per quart. A valuable species of dwarfish habit, fine for fruit or ornament.

## LOGAN BERRY.

(Raspberry-Blackberry.)

Originated in California; a cross between a red raspberry and a blackberry; vine a strong grower, spreading like Dewberry; free from disease; canes large, with soft spines; leaves coarse and thick; exceedingly prolific; ripens very early. Fruit size of large blackberries, same form and shape, color bright red, seeds small, flavor combination of blackberry and raspberry; mild, pleasant, vigorous, excellent.

## RHUBARB.

The first fruit from the ground in the early spring. Whether it be bought under the high-sounding name of wine plant, or as common pie plant, its excellence is undiminished. Every order should include some of those roots from which the edible stalks are easily grown.

**Linnaeus**—Large, early, tender and fine; the very best of all.

**Victoria**—The best for market because of its giant growth.

## STRAWBERRY-RASPBERRY.

One of the remarkable recent introductions from Japan. A beautiful dwarf raspberry, seeming from its character to be a hybrid between the raspberry and the strawberry. Bush dies to the ground in the fall; makes a handsome, low-spreading plant, with dark green foliage. Fruit is early, stands well out from the foliage; size and shape of a strawberry; color brilliant crimson.

## JAPANESE WINEBERRY.

Berry round, deep red, glossy, handsome and fairly firm. Borne in large clusters, and each berry at first tightly enveloped by the large calyx, forming a sort of burr, which is covered with purplish-red hairs. These gradually open and turn back, exposing wine-colored fruit of medium size, brisk sub-acid, retaining flavor when cooked.

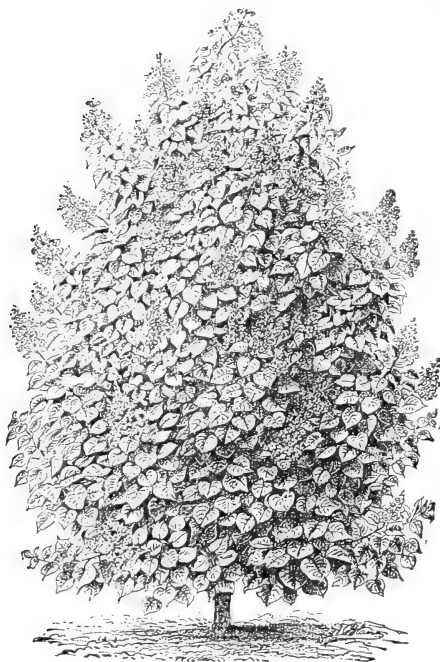
## ORNAMENTAL DEPARTMENT.

Hardy trees and shrubs can now be obtained at moderate cost that will stand the extremes of temperature and soil of nearly all sections. Judicious selection will obtain deciduous and evergreen trees, shrubs, vines, etc., that make beautiful specimens throughout the entire year, it being possible to obtain varieties that will give a succession of bloom through the season, while purple, variegated and weeping types always form a pleasing contrast.

Nursery-grown trees are pre-eminently superior and worth more at a fair price than trees dug from the woods. In the nursery trees are grown with the idea of getting as perfect shape as possible with fully developed root systems. They are transplanted at proper age, with sufficient space to develop both top and root, carefully pruned and cultivated. In the forest it is impossible to get trees as smooth and straight or with the very necessary fibrous roots.

*When to Plant.*—Deciduous Trees, Shrubs and Vines can be planted either in Spring or Fall. Spring is the best time for Evergreens.

### DECIDUOUS TREES.



CATALPA, SPECIOSA.

Millions of dollars are expended in chemical treatment of wood to increase its durability. The Catalpa has the capability of appropriating from the soil those antiseptic substances which in concentrated form resist the microbes of decay. They are built into the wood fiber, and when once dry are incapable of solution in water. Thus nature produces a tree far better than has yet been produced by artificial means. Railroad companies all over the country are planting great numbers of the Catalpa for their use as ties and posts and telegraph poles. The ravages of time seem to have no effect on the Catalpa. Ties have lain in mud ballast twenty years and when taken up for examination showed no signs of decay. Planted eight feet apart each way is the proper distance. A 12-foot straight growth will result the first season. After seven or eight years intermediate trees must be removed for posts, etc., leaving permanent trees sixteen feet apart. In sixteen years they will grow into better telegraph poles than white cedar, which takes from eighty to one hundred years to reach the same size. Good cultivation, some pruning and attention to a Catalpa grove will bring highly satisfactory financial results.

**Ash, American White**—A rapid grower and valuable for planting in the street or in parks; may be exclusively planted for timber.

**Beech, Purple-leaved**—A remarkable species, with deep purple foliage, changing to greenish-purple in autumn; a very striking contrast with ornamental trees.

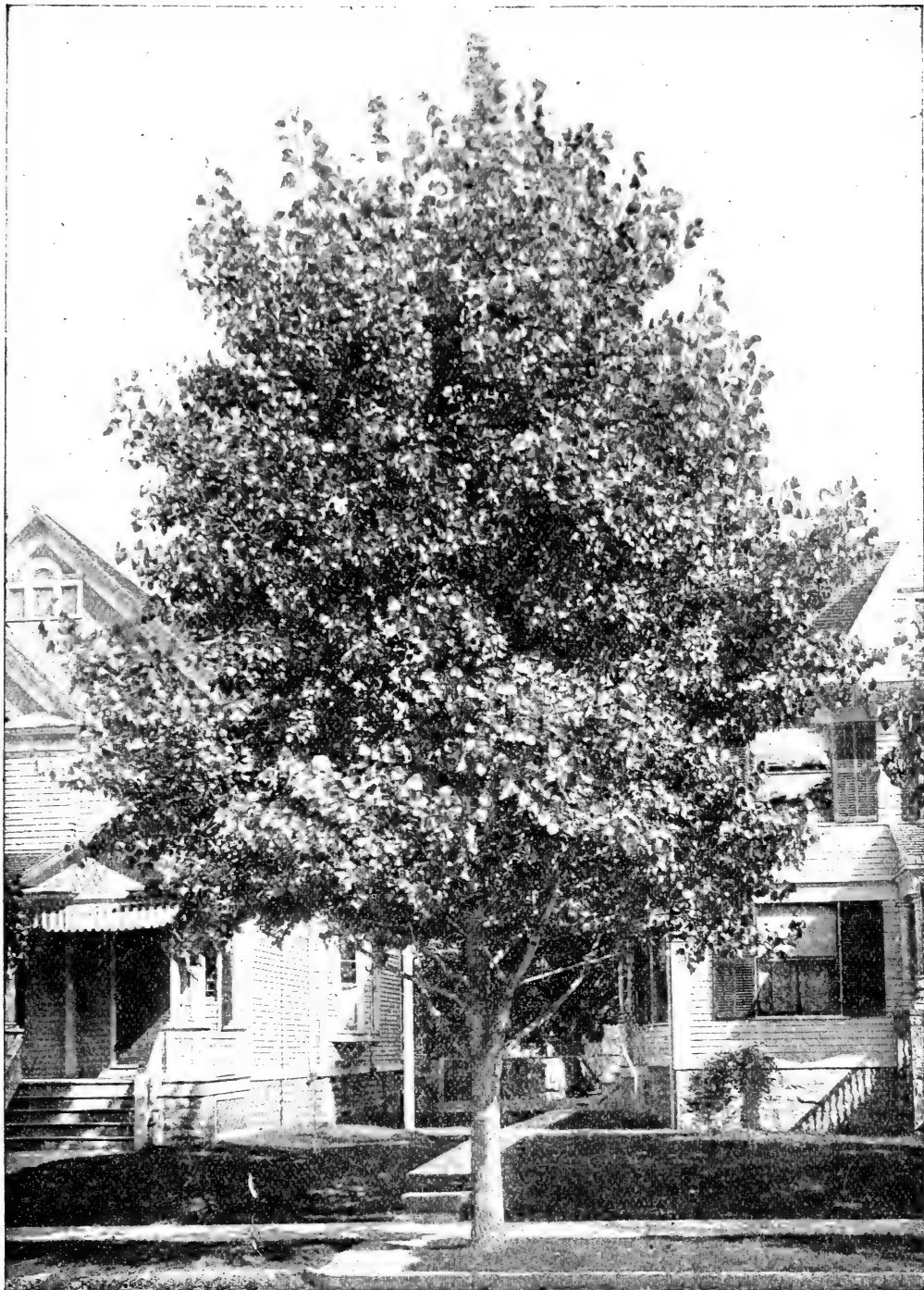
**Birch, European White**—A well-known tree, with graceful, airy foliage and silvery-white bark; very desirable for the lawn, either as a single specimen or in contrast with other trees in a group.

**Box Elder**—A fine, rapid-growing variety, with handsome, light green foliage and spreading head; very hardy; excellent for avenues.

**Butternut**—A fine native tree of lofty, spreading growth; luxuriant, tropical looking foliage; wood very valuable; nut large, long, highly prized for its oily, sweet, nutritious kernel.

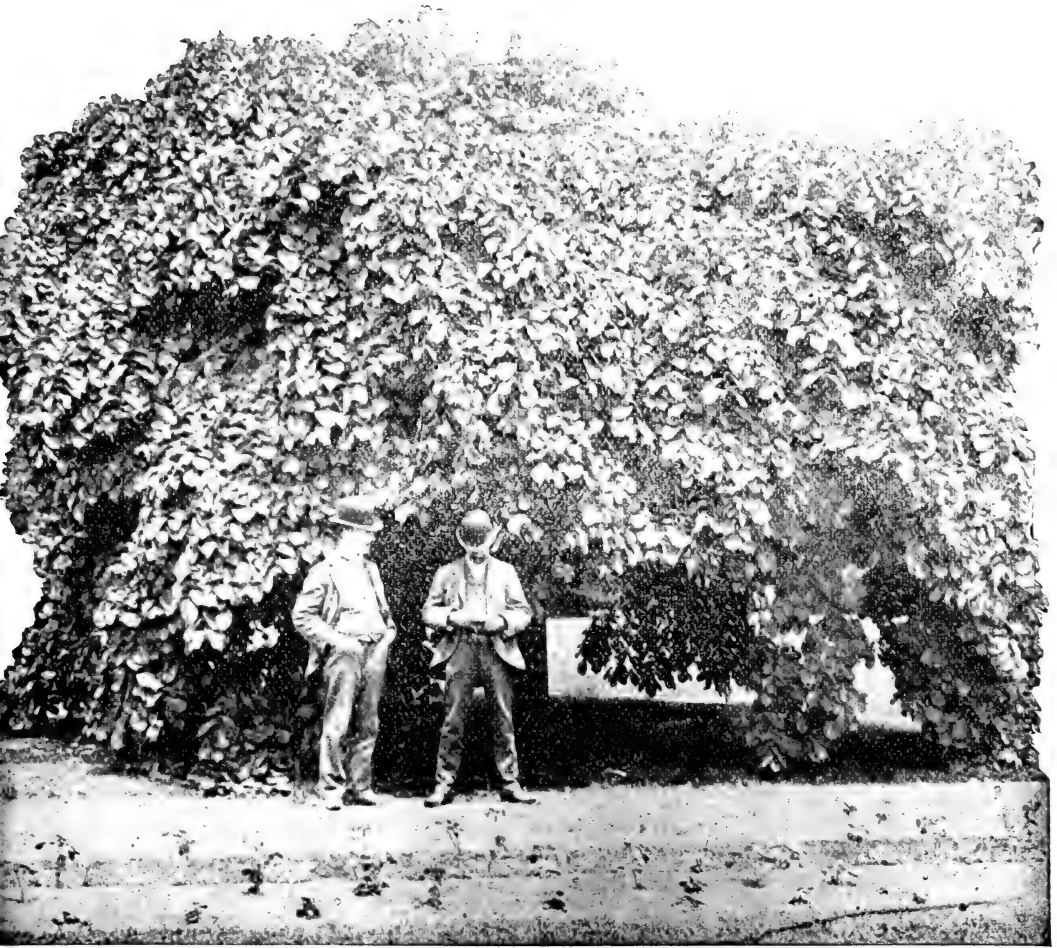
**Catalpa, Bungei**—Grafted on stems six to eight feet high it makes an umbrella top without pruning; perfectly hardy and flourishes in all soils and climates; leaves large, glossy, heart-shaped, deep green; lay like shingles on a roof, always making a symmetrical head.

**Speciosa**—A variety originating at the West. More upright and symmetrical in its growth than the common Catalpa, and blossoms two or three weeks earlier. Very valuable for timber, fence posts, railroad ties, etc., possessing wonderful durability; a very ornamental and valuable tree.



CAROLINA POPLAR.

- Chestnut, American Sweet**—A well known forest and nut-bearing tree, of great value for ornamental purposes; widely and extensively planted for profit as well as ornament.
- Horse, White Flowering**—A very beautiful well-known tree, with round dense head, dark green foliage, and an abundance of showy flowers in early spring. As a single lawn tree or for the street it has no superior.
- Crab, Bechtel's Double-flowering**—A medium-sized tree, perfectly hardy; when in bloom appears to be covered with delicate pink, perfectly double small roses of delicious fragrance.
- Elm, American White**—The noble drooping, spreading tree of our own woods; one of the grandest of park or street trees.
- Hackberry**—A worthy, native ornamental or shade tree, easily transplanted and thriving in most soils. In appearance similar to the Elm, but with thinner foliage; of pleasing color and form, and forming a broad, open-headed top. Its brownish fruit hangs on the branches all winter.
- Linden (Basswood)**—A fine native tree, with large leaves and fragrant flowers.
- Locust, Black**—A native tree of large size, rapid growth, and valuable for shade as well as quite ornamental. The flowers are disposed in long pendulous racemes, white or yellowish; very fragrant and appear in June.
- Honey**—A rapid-growing tree; delicate foliage of a beautiful, fresh, lively green and strong thorns; makes an exceedingly handsome, impenetrable and valuable hedge.
- Magnolia, Acuminata (Cucumber Tree)**—A fine pyramidal-shaped tree; the flowers are yellowish-white, medium sized, appearing in June. The fruit when green resembles a small cucumber, but when ripe it is a deep scarlet.
- Maple, Hard or Sugar**—A very popular American tree, and for its stately form and fine foliage, justly ranked among the very best, both for lawn and avenue.
- Norway**—A foreign variety, with large, broad leaves of a deep, rich green; probably the best maple in cultivation.
- Soft, or Silver-leaved**—Of rapid growth; of great value where a rapid-growing tree is desired; very hardy and easily transplanted; a favorite street or park tree.
- Weir's Cut-leaved**—A silver maple, with remarkable and beautiful dissected foliage. Of rapid growth; shoots slender and drooping, giving it a very graceful appearance; should be in every collection.
- Mountain Ash, European**—A very beautiful tree of medium size, with an erect stem, smooth bark and round head; covered during the fall and winter with bright scarlet berries; universally admired.
- Oak-leaved**—A handsome tree of erect habit and rich green foliage, deeply lobed; very hardy and desirable.
- Persimmon**—A small tree, with pleasing, shining foliage and well-known fruit.
- Poplar, Carolina**—Distinct and entirely different from the ungainly Lombardy. One of, if not the most rapid-growing trees, with large, handsome, glossy, serrated, deep green leaves. Succeeds everywhere; especially adapted to large cities, where it makes unusually fast growth and resists smoke and gas. Pyramidal form, making a spreading head and dense shade when properly trimmed. New growth should be well cut back in spring for the first few seasons. It is unexcelled for quick growth and effect; makes a splendid wind-break or screen; is used in larger numbers than any other one tree for street planting. For new places and streets, where the slower growing ornamentals are desired, plant the poplars between, securing an almost immediate effect, removing them as the other trees attain size.
- Red Bud, or Judas Tree**—A very ornamental small tree, native of the Western States, which in the early spring, before the leaves appear, is covered with delicate pink flowers.
- Russian Olive**—An ornamental tree of special value; attains a height of thirty feet or more; bark and leaves light green when young, bark becoming darker as the tree grows old, and the leaves more silvery-white; blooms profusely in June in small racemes 3 inches long, and their fragrance decidedly sweet and spicy; an excellent lawn tree; exceptionally hardy.
- Sycamore**—A lofty wide-spreading tree, heart-shaped leaves; valuable for its handsome foliage and free growth; entirely free from worms or insects; one of the oldest cultivated trees known. One of the best and most popular for street and avenue planting.
- Tulip Tree**—A native tree of the magnolia order; remarkable for its symmetry, its rich, glossy foliage, regularly distributed branches and large, tulip-like flowers.
- Walnut, Black**—This is the most valuable of all our timber trees for planting; a moderate grower, producing a large nut. The timber enters more largely into the manufacture of furniture and cabinet ware than almost any other, and is prized almost with mahogany.



CAMPERDOWN ELM.

## WEeping TREES.

**Birch, Cut-leaved**—An elegant, erect tree, with slender drooping branches and fine cut leaves; a magnificent variety and worthy a place on every lawn.

**Elm, Camperdown**—Its vigorous, irregular branches, which have a uniform weeping habit, overlap so regularly that a compact, roof-like head is formed; the finest weeping tree.

**Mountain Ash (Weeping)**—A beautiful tree, with straggling weeping branches; makes a fine tree for the lawn.

**Mulberry, Tea's**—A graceful and beautiful hardy tree, forming a perfect umbrella-shaped head, with long, slender, willowy branches, drooping to the ground and gracefully swaying in the wind. Foliage small, lobed and of a delightful, fresh, glossy green. The tree is exceedingly hardy and of rapid growth and abundant foliage; admirably adapted to cemetery planting and susceptible of being trained into almost any shape.

**Willow, Kilmarnock**—An exceedingly graceful tree, with large glossy leaves; one of the finest of this class of trees; very hardy.

**New American**—A dwarf, slender-branched species. Grafted five or six feet high it makes one of the most ornamental of small weeping trees.

**Thurlo**—A very handsome, rapid-growing weeping tree; will make a large tree in a few years; hardy and adapted to the west.

**Wisconsin**—Of drooping habit and perfectly hardy in the northwest.



NORWAY SPRUCE.



## EVERGREENS.

**Arbor Vitæ, American**—This is one of the finest medium-sized evergreen trees; one of the best and most available for screens. It is a native of the coldest part of the country, and there are few places where it will not thrive. Used more than any other variety for ornamental hedging. By the proper use of the knife and shears it can be made to grow into almost any desirable form.

**Pyramidalis**—The most beautiful of all arbor vitæs, having dark green compact foliage and remarkably erect form; perfectly hardy.

**Balsam Fir**—A very regular symmetrical tree, assuming the conical form even when young; leaves dark green above, silvery beneath.

**Cedar, Red (Platte)**—The compact, conical habit of this variety, combined with its silvery foliage, renders it very distinct; desirable for wind breaks; perfectly hardy.

**Juniper, Irish**—Very erect, tapering in its growth, forming a column of deep green foliage; a general favorite for lawn and cemetery planting.

**Trailing**—A low, spreading tree, with handsome dark green foliage; very hardy and suitable for rock work.

**Larch, European**—A beautiful tree; foliage is of an agreeable light green hue, soft and graceful; the branches are drooping and slender; leaves needle-shaped, like a fir tree; sheds its leaves in winter.

**Pine, Austrian**—A remarkably robust, hardy tree, with stout erect shoots; leaves long, stiff and dark green; growth rapid.

**Scotch**—A fine, robust, rapid-growing, spreading tree; silvery-green foliage.

**White**—The most ornamental of all our native pines; foliage light, delicate, or silvery-green; flourishes in the poorest soils.

**Spruce, Black Hills**—A very compact, slow-growing tree; dark green, beautiful; perfectly hardy.

**Colorado Blue**—A rare, elegant tree, with foliage of a rich blue; one of the most distinct and striking of all the spruce family; a free grower and perfectly hardy; choice.

**Douglas**—One of the best of Rocky Mountain trees; foliage brilliant pea-green, the branches partly pendulous; a vigorous grower.

**Hemlock**—An elegant pyramidal tree, with drooping branches and delicate, dark foliage, like that of the yew; distinct from all other trees. It is a beautiful lawn tree and makes a highly ornamental hedge.

**Norway**—A lofty, elegant tree, of perfectly pyramidal habit, remarkably elegant and rich, and as it gets age, has fine, graceful, pendulous branches; it is exceedingly picturesque and beautiful. Very popular, and deservedly so, and should be largely planted. One of the best evergreens for wind breaks.



COLORADO BLUE SPRUCE.

All goods packed under cover in specially designed houses and cellars—not exposed to wind and sun.

If customers gave nursery stock the same care and attention that the nurseryman does a larger per cent. would grow.



## ORNAMENTAL SHRUBS.

**Almond, Pink-flowering**—A beautiful dwarf shrub, with small, double rosy blossoms closely set upon the twigs before the leaves appear.

**White-flowering**—Similar to above, except color, which is a delicate white.

**Althea** (Rose of Sharon)—These are fine shrubs and especially valuable because of their flowering in the fall, when all other shrubs are out of bloom; hardy and easy of cultivation. Grown in white, red, purple and variegated.

**Artemesia, Russian**—A strong and vigorous type of the shrub commonly known as "Old Man," of rapid growth and desirable for screens and wind breaks; remarkable resister of drouth and cold.

**Azalea**—A beautiful species from Japan, perfectly hardy, with large flowers; the colors run through all the shades of orange, yellow and carmine.

**Berberry, Purple-leaved**—Foliage and fruit of a violet-purple color, very striking; fine for single specimens; also a desirable ornamental hedge plant.

**Calycanthus** (Sweet-Scented Shrub)—An interesting shrub, having a rare and peculiar fragrance of wood and flowers; its blooms are abundant and of a peculiar chocolate color.

**Cranberry, High Bush**—Handsome broad foliage, flat cymes of white flowers in June, followed by brilliant red fruit in showy masses that will remain on plant nearly all winter. Fruit is edible.

**Deutzia, Crenata**—Flowers double; white, tinged with rose; one of the most desirable flowering shrubs in cultivation.

**Dogwood, Red**—A strong-growing shrub, with clusters of fine white flowers, the stem and branches turning blood-red in winter.

**Eleagnus Longipes**—A handsome growing shrub, forming a neat, compact bush, with ornamental reddish-brown bark in winter; perfectly hardy and easy to grow. Bright yellow flowers in June on long stalks, but the greatest value of the shrub is in the fruit which is produced in the greatest abundance along the whole length of the branches, oval in shape and about one-half inch long, color deep orange-red; very showy and attractive.

**Euonymus** (Strawberry Tree, or Burning Bush)—A very ornamental and showy shrub; its chief beauty consists in its brilliant dark red berries, which hang in clusters from the branches until mid-winter; planted with a background of evergreens the effect of contrast is very fine; leaves scarlet in autumn.

**Forsythia, Viridissîma** (Golden Bell)—Leaves dark green; flowers bright yellow, very early in spring; a fine, hardy shrub; introduced from China.

**Fringe, Purple** (Smoke Tree)—A very much admired and conspicuous shrub or small tree, with spreading habit, so as to require considerable space; covered in mid-summer with a profusion of dusky fringe-like flowers; desirable for its striking peculiarity of flowering.

**White**—One of the best large shrubs or small trees, with superb foliage, and delicate fringe-like white flowers.

**Honeysuckle, Red Tartarian** (Bush or Upright)—A well-known shrub; flowers bright pink, which appear in May. Very hardy and makes a desirable ornamental hedge.

**White Tartarian**—Like the preceding, but has white flowers.

**Hydrangea, Paniculata Grandiflora**—A fine shrub of recent introduction, blooming from July to November; large, showy panicles of white flowers in the greatest profusion; it is quite hardy, and altogether a most admirable shrub for planting singly on the lawn or in the margin of masses; to produce largest flowers it should be pruned severely in the spring and the ground enriched.

**Japan Quince** (Pyrus Japonica)—An old and esteemed variety, having a profusion of bright scarlet flowers in early spring, and one of the best early shrubs; makes a beautiful and useful hedge.

**Lilac, Persian**—Native of Persia; from four to six feet high, with small foliage and bright purple flowers.

**Double Purple**—A new and choice variety of the lilac, producing long racemes of double purple flowers, lasting longer than the single sort.

**Large-flowering White**—A beautiful variety; has very large pure white panicles of flowers.

**Privet, California**—A desirable shrub, nearly evergreen, that produces delicate white flowers in great profusion; the flowers possess a pleasant heliotrope fragrance; a valuable hedge plant.

**Prunus Pissardi**—This elegant small tree or shrub comes to us from Persia. It is perfectly hardy and the leaves are a rich purple, with the ends of the growing shoots a brilliant red, retaining its bright purple through the entire season. Covered in spring with small white single flowers.

**Triloba**—Flowers semi-double, of a delicate pink, upward of an inch in diameter, thickly set on the long slender branches; native of China. Blooms in May.

**Rhododendron**—These are the most magnificent of all evergreen shrubs, with rich, green foliage and superb clusters of showy flowers; they flourish best in peaty soil, and like azaleas, are the most effective when grouped. Plant in sheltered locations. Soil strongly impregnated with lime should be removed before planting and the space filled in with leaf mould and peat or muck mixed, or other good soil tolerably free from lime. The catawbiense varieties have lilac-colored and red flowers and are perhaps the most hardy sorts.

**Snowberry**—A very pretty shrub, with clusters of rose-colored flowers early in spring, followed by waxy-white berries, which hang on through part of the winter.

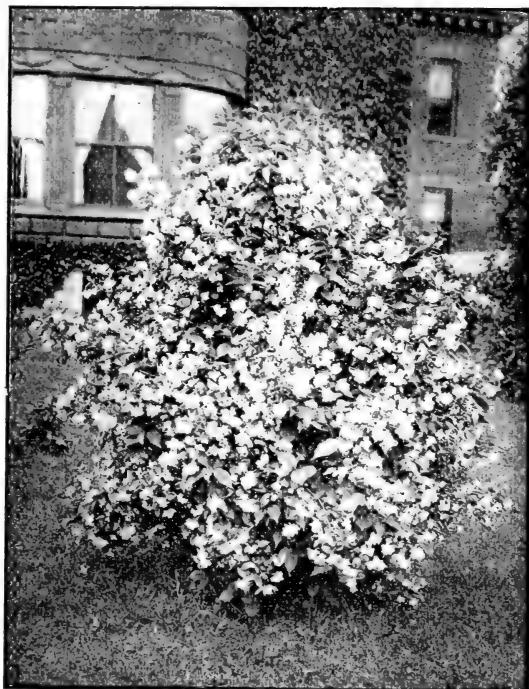
**Snowball, Common**—A well-known favorite shrub, of large size, with globular clusters of white flowers in June.

**Japanese**—A rare and exceedingly beautiful species from Japan; flowers pure white, in very large globular heads.

**Spirea, Anthony Waterer**—A new crimson-flowered variety; one of the most beautiful of dwarf-flowering shrubs.

**Billardi**—Rose-colored; blooms nearly all summer.

**Van Houtti (Bridal Weath)**—One of the most charming and beautiful of the spireas, having pure white flowers in clusters or panicles an inch in diameter. Astonishingly profuse in bloom, and plants remarkably vigorous and hardy. But recently introduced from France, and there is no more desirable flowering shrub in cultivation. Makes a fine ornamental hedge.



SPIREA VAN HOUTTI.

**Syringa, or Mock Orange**—A well-known shrub, with pure white, sweet-scented flowers; one of the first to flower.

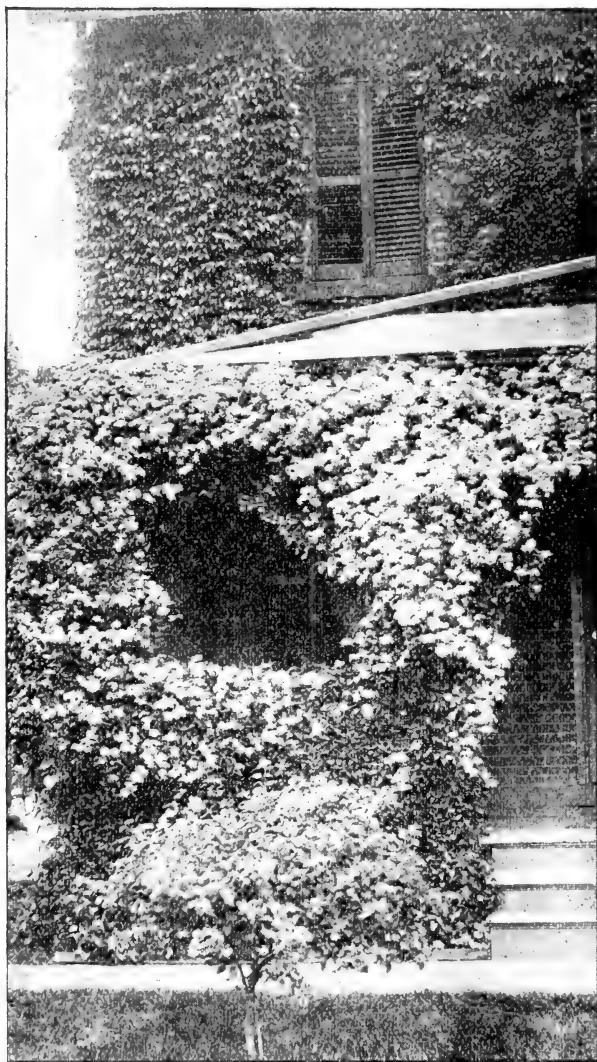
**Tamarix Amurensis**—A beautiful, hardy, rapid-growing shrub; leaves resemble juniper or cedar; bears a delicate, pinkish-white flower, and continues blooming through the summer.

**Weigela, Rosea**—An excellent shrub, with fine rose-colored flowers; introduced from China; blossoms in May.

We can supply anything named in this book and a limited quantity of some sorts not listed.

A good apple orchard will produce four times the income per acre of any other farm crop.

## HARDY ORNAMENTAL VINES.



CLEMATIS PANICULATA AND AMPELOPSIS VEITCHII.

pearance, distinctly veined. It flowers continually from July until cut off by frosts.

**Paniculata** (Japanese Sweet-Scented)—Of rapid growth, with handsome, glossy foliage; flowers of medium size, pure white, and of delicious, penetrating fragrance; blooms in September after others are gone.

**Ramona**—A strong, rampant grower; large flowers; blooms through the season; color deep, rich lavender.

**Virgin's Bower** (Virginica)—A very rapid-growing and hardy plant; flowers small, white.

**Vitacella**—A rapid climber; drooping blue or purple flowers through summer and autumn.

**Ampelopsis Veitchii** (Boston Ivy)

—A beautiful, hardy, climbing plant, of Japanese origin. This is one of the finest climbers we have for covering walls, as it clings firmly to the smoothest surface, covering it smoothly with overlapping leaves, which form a perfect mass of foliage. The color is a fresh deep green in summer, changing to the brightest shade of crimson and yellow in autumn. It is quite hardy, and becomes more popular every year.

**Quinquefolia** (Virginia Creeper, or American Ivy)

—A native vine of rapid growth, with large, luxuriant foliage which, in the autumn, assumes the most gorgeous and magnificent coloring. The blossoms, which are inconspicuous, are succeeded by handsome dark blue berries.

**Bignonia** (Trumpet Flower)

—A splendid climber, vigorous and hardy, with clusters of large, trumpet-shaped scarlet flowers in August.

**Celastrus** (Bitter Sweet)

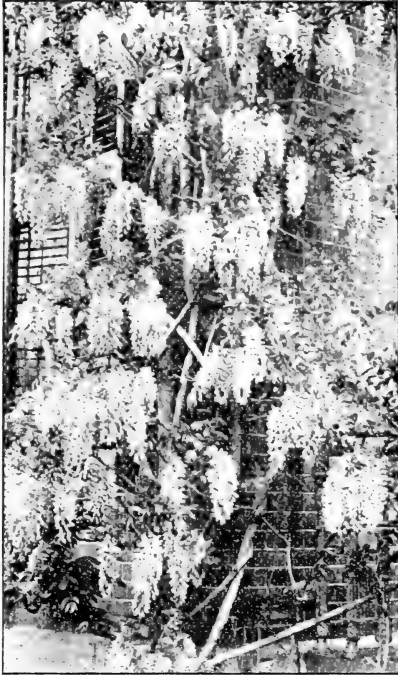
—A native climber, with handsome glossy green foliage and large clusters of beautiful orange-crimson fruits.

**Clematis, Henryii**

—Creamy-white; very large and fine shaped; free grower and bloomer.

**Jackmanni**

—Flowers, when fully expanded, four to six inches in diameter; intense violet-purple, with a rich velvety ap-



WISTARIA.

**Honeysuckle, Halleana** (Hall's New Japan)—Color white, changing to yellow; very fragrant; blooms from June to November.

**Monthly Fragrant**—A fine, rapid-growing variety, flowers large and very fragrant; color red and yellow; a constant bloomer.

**Scarlet Trumpet**—A strong, rapid grower; blossoms very freely the entire season; bright red trumpet-shaped flowers.

**Yellow Trumpet**—A fine grower; yellow flowers.

**Wistaria**—A most beautiful climber of rapid growth, and producing long pendulous clusters of pale blue flowers; it is very hardy, and one of the most superb vines ever produced.

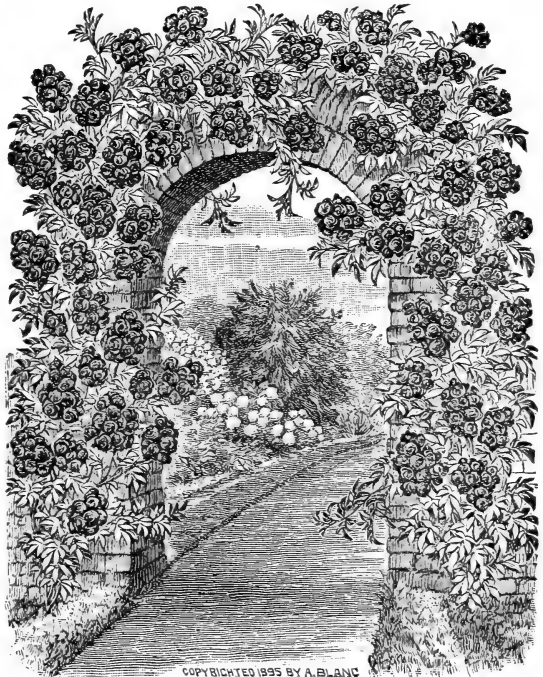
## HARDY ROSES.

This includes the hybrid perpetuals, mosses and climbers; they make a gorgeous display of deep rich colors during the spring and summer, and most of the hybrid perpetuals give a second crop in the fall, in many cases finer flowers than in June. Some slight protection is advisable in the winter. Rose bushes should be well cut back

in the spring, all the dead wood cut out. Plant in rich ground and keep well cultivated. London Purple is a good remedy for the slugs that destroy the leaves, but not as efficient as kerosene emulsion.

Our roses are strong plants, grown out doors, well rooted, and in every way first-class. They have already bloomed before sent out, and are in every respect much better and stronger plants than the ones that are so freely advertised and sent out by mail, and which are small, tender shoots, started in a greenhouse and after a few weeks sent out, before they have established sufficient growth and constitution to stand the shock of transplanting.

We use every care to send out stock just as represented—carefully dug, well rooted and in good condition.



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CRIMSON RAMBLER ROSE.

### HARDY CLIMBING ROSES.

**Baltimore Belle**—Pale blush, nearly white; very double. Flowers in large clusters, the whole plant appearing a perfect mass of bloom.

**Empress of China**—Light red, changing to pink when fully expanded. A free and continuous bloomer; flowers medium size.

**Prairie Queen**—Bright rosy-red; large, compact and globular flowers; blooms in clusters. One of the best.

**Rambler, Crimson**—A Japanese rose bearing immense trusses of bright crimson flowers. The plant is a vigorous grower, making shoots eight to ten feet long in a season. The flowers are grown in large pyramidal panicles, each carrying thirty to forty blooms; the individual flowers are one to one and one-half inches in diameter and remain in perfect condition for a long time. Color bright vivid crimson, with none of the purplish tint so common in crimson roses. A charming pillar rose, and for covering trellises or buildings there is nothing finer. (See cut on preceding page.)

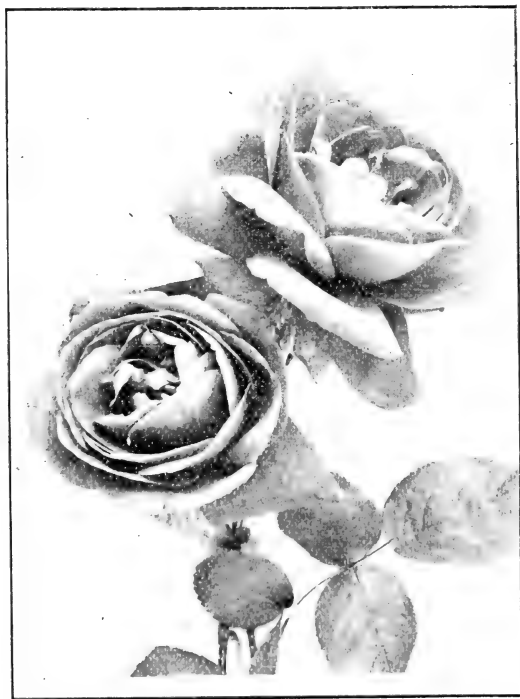
**Pink**—Flowers medium size, pink, in clusters; very pretty.

**White**—Resembles Crimson Rambler in foliage and habit of growth; flowers pure white in large clusters.

**Yellow**—Flowers of medium size in immense clusters, often thirty-five to forty flowers in a single cluster; very sweet-scented. Color a clear decided yellow, a color heretofore unknown in a climbing rose that was in any way hardy.

**Seven Sisters**—Crimson, changing all shades to white.

### HYBRID PERPETUAL ROSES.



BARON DE BONSTETTIN.

**American Beauty**—One of the grandest and most beautiful constant-blooming roses; immense buds and flowers; rich glowing crimson; exceedingly fragrant; requires protection in winter.

**Anna de Diesbach**—Carmine, beautiful shade; moderately full and very large.

**Baron de Bonstettin**—Extra large flowers, round, full, solid, dark rich crimson, delightfully scented; hardy, vigorous and free bloomer.

**Baroness Rothschild**—Light pink, cupped form, very symmetrical, without fragrance; very beautiful; a good grower.

**Black Prince**—Splendid, large, rich, deep crimson; extra full and fragrant and very double.

**Coquette des Alps**—White, lightly shaded with carmine; of medium size; a free bloomer.

**Coquette des Blancches**—Pure white, flowering in clusters; a very free bloomer.

**Duchess of Albany**—A superb rose; resembles La France, but much deeper in color; extra large, elegant and fragrant.

**Earl of Dufferin**—Velvety crimson, beautifully shaded with rich maroon; large, full and fragrant.

**Francois Levet**—Large, finely made flowers; color cherry pink, delicately shaded carmine and blush; fragrant; extra good.

**General Jacqueminot**—Brilliant crimson-scarlet; very showy and effective.

**General Washington**—Brilliant rosy-crimson; large and double; fine.



MARGARET DICKSON.

**Prince Camille de Rohan**—Deep velvety-crimson, large, moderately full; a splendid rose.

**Ulrich Brunner**—Extra large, bold flowers, full and globular; color rich and glowing crimson, elegantly flamed with scarlet.

### MOSS ROSES.

**Countess of Murinais**—White, slightly tinged with flesh; the best white moss.

**Crested**—Deep pink buds, surrounded with a mossy fringe and crest; fragrant; one of the best.

**Henry Martin**—Rich, glossy pink, tinged with crimson; large globular flowers.

**Luxemburg**—Large, cupped, fine crimson; a luxuriant grower and free bloomer.

**Perpetual White**—Pure white; blooms in large clusters.

**Princess Adelaide**—Fine reddish-blush; large and most vigorous.

**Salet**—Clear rose color, very double, of vigorous growth and abundant bloom; perpetual.

Mulching trees is essential and cannot be too strongly urged and recommended. Keeps the earth moist and of even temperature and prevents cracking and baking.

**Louis Van Houtti**—Beautiful maroon; medium size, full, of fine shape, deliciously perfumed.

**Madam Gabriel Luizet**—Color an exquisite shade of clear coral-rose, suffused with lavender and pearl; good bloomer; hardy.

**Madam Plantier**—One of the finest pure white roses, blooming in clusters.

**Magna Charta**—Extra large, full flowers, very double; color clear rosy-red, beautifully blushed with violet crimson; a sure bloomer and hardy.

**Margaret Dickson**—Beyond question the finest white hybrid perpetual rose yet introduced; color pure waxy-white, with pale flesh center; petals large, shell-shaped and prettily curved back with inimitable grace; universally admired.

**Marshall P. Wilder**—Color bright scarlet-crimson, richly shaded with maroon; a desirable rose.

**Mrs. John Laing**—Free blooming; color a soft, delicate pink, with satin tinge; very fragrant.

**Paul Neyron**—Deep rose color, good foliage; by far the largest variety in cultivation; free bloomer.



ULRICH BRUNNER.

## MISCELLANEOUS ROSES.

**Harrison's Yellow**—Double, bright yellow, very showy and fine.

**La France**—Delicate silvery-rose, very large and full; an almost constant bloomer; equal in delicacy to a tea rose; the most delicious fragrance of all roses; a moderate grower; semi-hardy.

**Marchal Neil**—Beautiful deep yellow, very large, free-flowering; one of the finest yellow tea-scented roses yet introduced; a good climbing rose.

**Persian Yellow**—Deep golden-yellow, double and very fine.

**Tree Roses**—Grafted on hardy rose stalks four to five feet high, are dwarf tree-shaped, and in full bloom are objects of beauty; handsome for lawns or house plants in winter; colors white and different shades of pink, red and crimson.

**Wichuriana** (Japanese Memorial)—A low trailing species; flowers in great profusion in clusters, and last a long time; used to cover embankments, terraces, stems of trees, pillars, trellises; a favorite cemetery rose; pink and white.

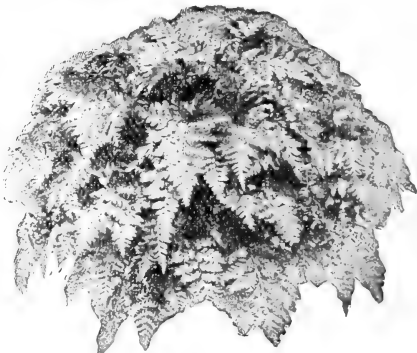
## BULBS AND TUBERS.

**Bleeding Heart**—A beautiful hardy border plant, with brilliant, rosy, heart-shaped flowers, hanging in great profusion from a gracefully curved stem. May and June.

**Cannas**—They commence to flower a short time after planting in the early spring, and are a mass of gorgeous colors until stopped by frost in the fall.

**Dahlias**—Well-known autumn-flowering plants, growing from two to five feet high, and producing a profusion of flowers varying from the purest white to the darkest maroon. Should be taken up in the fall.

**Fern Ball** (Japanese)—A charming novelty from the orient; unique, beautiful and lasting; more handsome than a palm and much easier grown; hardy fern roots from the mountains of Japan are wound tightly around a ball of moss and securely interwoven and tied; should be regularly soaked in water and hung in a cool shady place; it will send out leaves of a beautiful emerald-green until the whole is a mass of dainty green fronds; must be watered occasionally; may be allowed to dry up at any time and started again as directed.



JAPANESE FERN BALL.

**Gladiolus**—Of all our summer flowering bulbs the gladiolus stands eminently at the head as the most varied and beautiful class. The flowers are produced in spikes two feet in height and upwards; the brilliant scarlet and crimson of some form a striking contrast with the delicate shades and pencilings of the lighter-colored varieties. By planting at intervals from first to middle of June a succession of flowers can be had from July to October.

**Golden Glow**—A hardy perennial, growing six to seven feet high, and producing hundreds of bright golden flowers, two to three inches in diameter, on long graceful stems, forming immense heads of bloom; fine for cut flowers. Should be planted in every garden; when once well established will furnish an endless amount of flowers. Can be grown anywhere with very little care.

**Hyacinths**—Among all the bulbs used for winter flowers the hyacinth stands foremost on the list. Two methods are employed in flowering the hyacinth in winter—one in glasses filled with water, the other in pots or boxes of soil.

**Lilium, Auratum** (Gold Band Lily)—A magnificent Japan variety. Fall planting.

**Tigrinum** (Double Tiger Lily)—Bright orange-scarlet, with dark spots; fine. Fall planting.

We do not handle inferior and mis-named varieties. Buy from us and get what you order.

No stock shipped without certificate of inspection and guaranteed free from disease.

We are growers and propagators of choice nursery stock.



**Pæonies** (Herbaceous)—Showy, beautiful flowers, perfectly hardy, easy to cultivate; season early, before the rose; they deserve a place in every garden. Colors red, pink, white and tricolor.

**Tube Roses**—Flowers very fragrant; flower stems from three to four feet; autumn.

**Tulips**—Nothing for the amount of money invested will give a more gorgeous show during early spring, and there is nothing more easily grown than the tulip. They thrive well in almost any soil; should be planted during October and November.

**Yucca Filamentosa** (Spanish Bayonet, or Adam's Needle)—A very conspicuous plant; the flower stalks, three and four feet high, are covered with large waxy, whitish, bell-shaped flowers.



PÆONY.

## HEDGES, SCREENS AND WIND BREAKS.

Neatly trimmed hedges are permanent and ornamental, and can be secured as cheaply as good board fences. They attract attention and enhance the value of any place, be it in the city, village or country.

Osage Orange is the principal hedge plant for practical fencing, and will turn any ordinary farm stock. Posts of this wood are very durable, being preserved by the oily sap. Honey Locust is also desirable and preferred by some.

Evergreens take first place for ornamental hedges as well as wind breaks. For tall hedges the Norway Spruce is unsurpassed. A vertical wall twelve feet high can be grown in six years, planted four feet apart and not cut back until the desired height is obtained. Our common Red Cedar is beautiful and graceful. It should be allowed to grow wide at the base, height can be grown later. It stands shearing like sheep. The Arbor Vitæ make useful hedge plants, being thick and bushy. They are quite popular.

Of the deciduous plants the Privet comes nearest to being an evergreen, usually remaining green until Christmas, often later. It is of wonderful growth and is becoming deservedly popular in cities. It should be planted in either double or single rows six to eight inches apart, and not allowed to grow upwards until a good, broad, bushy base has been obtained. This is the vital point in growing most hedges. The Purple-leaved Berberry is another ornamental shrub that is very striking for hedging, with its conspicuous leaves and fruit. Japan Quince makes a beautiful hedge, with its bright scarlet flowers, which bloom early in the spring. The Berberry and Japan Quince are recommended as being very hardy.

Wind breaks of trees make the dwelling house, barn, or shed, warmer in the winter and cooler in the summer, giving comfort to the inmates. In the winter season it is an established fact that a wind break on the north and west diminishes the consumption of fuel in the home and less food is required for stock in yard or building. In addition to the list of common evergreens any of the regular forest trees are suitable for this purpose.

*List for Hedges and Wind Breaks.*—Deciduous Plants: Tartarian Honeysuckle, Crimson Rambler Rose, Berberry, Privet, Japan Quince, Spirea Van Houtti, Tamarix Amurensis, Osage Orange, Honey Locust, Russian Mulberry, Ash, Box Elder, Catalpa, Soft Maple, Carolina Poplar, Willow, etc. Evergreens: Arbor Vitæ, Red Cedar, Norway Spruce, etc.

*For Parks and Extensive Grounds.*—In making selections for this purpose there can be no difficulty, as all of the varieties of ornamentals we offer are well adapted. Some few sorts require slight protection in the winter, and it is always a good idea to heavily mulch after mounding up the dirt in the Fall.

*For Lawns and Small Places.*—A little more care is necessary in making selections which depend on the size of ground. The following trees are specially fine for single specimens: Horse and Sweet Chestnuts, Cut-leaved Weeping Birch, Hard and Weir's Cut-leaved Maples, Linden, Mountain Ash, Camperdown Elm, Irish Juniper, Colorado Blue Spruce, Pyramidalis. A good procession of hardy shrubs that will give a succession of flowers and also a variety of foliage, is as follows: The Forsythia, or Golden Bell, comes early in April with its mass of yellow blossoms; then the Weigelas with their profusion of flowers from pure white to dark maroon. The Spireas, especially the white and pink, are very beautiful in July and August. The showy Hydrangea is effective as a single specimen or in masses. In order to secure some beauty during cold weather add Red Dogwood and Buffalo Berry.

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GOLDEN GLOW.

. . . Established 1875 . . .

Old and Reliable  
**Mount Arbor Nurseries**  
Shenandoah, Iowa.

Largest  
Retail Nurseries  
in the West.

Up-to-Date  
With New Varieties  
Proved to be of  
Practical Value.

SPECIALTIES :

MONGOLIAN SNOW PEAR.

WINTER BANANA APPLE.

RICHLAND and AMERICA PLUMS

BOKARA and BAILEY PEACHES

CAMPBELL'S EARLY GRAPE.

BABBITT RASPBERRY.

CRIMSON RAMBLER ROSE.

... **W**E furnish our trade with the exact stock ordered and avoid entirely the substitution so commonly practiced.

All goods packed under cover. Stock not exposed to wind and sun, as is usually the case with most nurseries where packing is done in the open. We are growers and propagators of a very complete line of general Nursery Stock. Office, Packing Sheds, and R. R. Side Track, one block south of Wabash Depot.

Address all correspondence to  
**MOUNT ARBOR NURSERIES,**  
Shenandoah, Iowa.